

# Parts Manual for **SNAPPER®**

## 18 & 21" V-SERIES CAST DECK WALK BEHIND MOWERS

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**NOTE: The Series number is the last numeral in the model number.**

IT IS THE POLICY OF SNAPPER POWER EQUIPMENT TO IMPROVE ITS PRODUCTS WHENEVER IT IS POSSIBLE AND PRACTICAL TO DO SO. WE RESERVE THE RIGHT TO MAKE CHANGES OR ADD IMPROVEMENTS AT ANY TIME WITHOUT INCURRING ANY OBLIGATION TO MAKE SUCH CHANGES ON PRODUCTS MANUFACTURED PREVIOUSLY.

**SNAPPER POWER EQUIPMENT**  
McDonough, GA • 30253



# ***Operator's Manual***

## **THANK YOU FOR BUYING A SNAPPER PRODUCT!**

We have designed and built this machine with utmost care, and it is intended to give you long and satisfactory service.

Any mechanical device can be potentially dangerous if not used properly. No accident prevention program can be successful without the wholehearted cooperation of the person who is directly responsible for the operation of the equipment. Study this operator's manual to learn the operation of the controls and observe all safety precautions. Only use this machine for the purpose it is intended. By following these instructions and safety precautions you should enjoy the long and trouble free operation you expect.

# **Snapper Mower**

**MODELS V180 - V180S - SV180  
V210 - V210S - V2104 - SV210**

## **SNAPPER MOWER GUARANTEE**

All Snapper Mowers are guaranteed for normal use to the original purchaser against defective workmanship and material. This guarantee extends for one year from purchase date on mowers not used commercially, and for one month on mowers that are used commercially.

We will replace or repair without charge any part or parts returned to us during the guarantee period, with transportation charges prepaid, that our inspection shows to have been defective in workmanship or material when shipped from the factory.

This guarantee is void if the parts in question have been altered or damaged by accident, abuse, neglect, improper adjustment, lack of lubrication or normal wear. This guarantee does not cover engines, tires, tubes, batteries and belts which are guaranteed separately by their manufacturers.

No other guarantee, expressed or implied, is made by the Company which retains the right to change specifications without notice or obligation.

**WARNING:** Use of replacement parts other than genuine Snapper parts may impair the safety of your mower and may void our warranty.

**IMPORTANT:** This guarantee is void unless the guarantee card attached is filled out completely and mailed to the Factory within 10 days of the date mower was purchased.

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**McDONOUGH POWER EQUIPMENT, INC.**



**McDONOUGH, GA., U. S. A., 30253**

# Assembly, Operation and Service Instructions for V180 - V180S - SV180 - V210 - V210S - V2104 - SV210 **SNAPPER MOWER**

## **IMPORTANT**

### **TRAINING**

1. Read the Operating and Service Instruction Manual carefully. Be thoroughly familiar with the controls and proper use of the equipment.
2. Never allow children to operate a power mower.
3. Keep the area of operation clear of all persons, particularly small children, and pets.

### **PREPARATION**

1. Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wire, bones and other foreign objects.
2. Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.
3. Check fuel before starting engine. Do not fill gasoline tank indoors, when engine is running, or while engine is still hot. Wipe off any spilled gasoline before starting engine.
4. Never attempt to make a wheel height adjustment while the engine (motor) is running.
5. Mow only in daylight or in good artificial light.
7. Never operate equipment in wet grass. Always be sure of your footing; keep a firm hold on the handle and walk; never run.

### **OPERATION**

1. Do not change engine governor settings or overspeed engine.
2. Do not put hands or feet near or under rotating parts. Keep clear of discharge at all times.
3. Stop blade (s) when crossing gravel drive, walks or roads.
4. After striking a foreign object, stop the engine (motor), remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

5. If the equipment should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
6. Stop engine (motor) whenever you leave the equipment, before cleaning mower housing, and when making any repairs or inspection.
7. When cleaning, repairing or inspecting, make certain blade and all moving parts have stopped. Disconnect spark plug wire and keep wire away from plug to prevent accidental starting.
8. Do not run engine indoors.
9. Shut engine (motor) off and wait until blade comes to a complete stop before removing grass catcher and/or unclogging chute.
10. Mow across the face of slopes, never up-and-down. Exercise caution when changing direction on slopes. Do not mow excessively steep slopes.
11. NEVER operate mower without proper guards, plates or other safety protective devices in place.
12. Keep washout ports and other mower housing service openings closed when mowing.

### **MAINTENANCE AND STORAGE**

1. Check blade and engine mounting bolts at frequent intervals for proper tightness.
2. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
3. Never store equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
4. To reduce fire hazard keep engine free of grass, leaves or excessive grease.
5. Check grass catcher bags frequently for wear or deterioration. Replace with new bags for safety protection.

### **INSTALLATION OF HANDLES:**

1. Pull up and back on 3-7331 lower handle pivoting until it is in place. Tighten the two 5-0615 wing nuts. Fasten upper handle to lower handle pivoting using two  $\frac{1}{4}$ -28 x  $1\frac{1}{2}$  curved head bolts, two  $\frac{1}{4}$  internal tooth lock washers and two  $\frac{1}{4}$ -28 hex nuts. Fasten the throttle control to the upper handle using one  $\frac{1}{4}$ -28 x  $1\frac{3}{4}$  HHCS, one  $\frac{1}{4}$  internal tooth lock washer and one  $\frac{1}{4}$ -28 hex nut. Clip conduit to the handle using two slip-on clips. Handle height can be adjusted at the slats in the rear wheel brackets.

### **INSTALLATION OF GRASS CATCHER:**

1. Disconnect spark plug wire.
2. Place front bag support (rail bar) with off-set side on right hand side into slats in rear wheel brackets. Top part will lay down close to engine. Raise up allowing ends to drop through slats into holes below.
3. Place plastic bag chute onto deck with stud nearest "CAUTION" passing through hole in chute. Make sure captive carriage bolts drop into slots in the bracket next to the right front wheel. Place

Place half ring clamp with slatted end to rear over the front stud. Secure with 5/16 washer and 5/16-18 lock nut.

Place 5/16-18 x 1 carriage bolt through hole in deck which is located at rear of discharge opening, and through hole in plastic chute. Secure with a 3-1801 clip, 5/16 washer and one 5/16 lock nut. NOTE: Head of carriage bolt must be to inside of deck.

4. Slip the ends of the 3-1127 front wire through the front flap of the bag and hook over the rail bar as shown in figure 4. Slip the ends of the 3-1128 rear wire in the rear flap and hook over the top section of the lower handle pivoting. If top of bag is not taut, remove and shift front and rear wires to inboard flaps and replace.

Now slip inlet neck of bag over bag chute as far as possible. Do not allow side of bag to block discharge opening of chute. Stop engine and empty bag of grass clippings at rear opening before bag is over filled or bag chute will become clogged. **NEVER ATTEMPT TO CLEAR BAG CHUTE IF CLOGGED UNLESS ENGINE IS STOPPED AND THE SPARK PLUG WIRE IS DISCONNECTED.**

#### INSTALLATION OF SIDE CHUTE:

1. Disconnect spark plug wire.
2. Remove grass catcher in reverse sequence of step 4. (Previous Page).
3. Attach 3-9572 side chute extension to side chute using four 10/32 hex nuts, four 10/32 x 5/16 RHMS and four No. 10 internal tooth lock washers. NOTE: Head of bolts must be to inside of chute. See illustration.
4. Grip metal side chute with both hands and slip large slatted hole over mounting key on the deck. Slightly squeeze together and slip captive carriage bolt into slot in bracket at right front wheel while holding the slatted hole on the deck key.
5. Use one of the half clamps to hold the top down at the front stud. Use the other half round clamp to go over the rear stud and into the small slot in the side chute. Fasten with three 5/16 flat washers and three 5/16-18 hex lock nuts.

#### REFER TO PICTURES BELOW FOR PROPER INSTALLATION OF GRASS BAG AND SIDE CHUTE



FIGURE 1

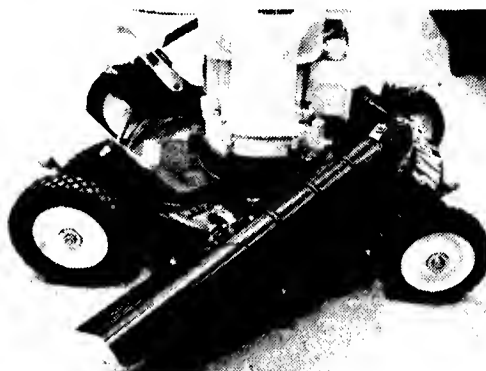


FIGURE 2

#### ENGINE CARE AND OPERATION:

1. **FILL ENGINE WITH OIL BEFORE CRANKING MOWER.**
2. Refer to engine manual furnished with this packet for instructions to oil, fuel and maintain the engine properly.
3. **WASH OUT CLEANER ELEMENT IN MINERAL SPIRITS OR GASOLINE AND RE-OIL WITH ONE TABLESPOON OF ENGINE OIL EVERY THREE HOURS OF USE OR AFTER EACH THIRD MOWING.**
4. **NEVER PLACE MOWER ON ITS LEFT HAND SIDE WITH SPARK PLUG POINTED DOWNWARD AS THIS WILL ALLOW THE ENGINE OIL TO RUN OUT THROUGH THE VALVE TAPPET VENT.** If left too long, oil could also leak past the piston into the cylinder.

#### LUBRICATION:

1. Change oil as specified in the engine manual.
2. Occasionally put a few drops of oil on all movable parts.
3. The ball bearing wheels have been factory greased and should not be greased unless removed.

#### ADJUSTING CUTTING HEIGHT:

1. This mower has solid through axles front and rear to give superior strength and wheel alignment. Thus with the through axle design, it is necessary to walk the height latches one notch at a time, side to side when it is desired to change the cutting height. **NEVER UNLATCH BOTH SIDES AT THE SAME TIME.**
2. When changing cutting height, make sure that all latches are in matching slots. This results in the cutting blade being slightly higher in the rear to eliminate drag.

#### OPERATING TIPS

1. **SNAPPER V180 and V210** will cut either forward or backward. However, due to the set of the blade, slightly less power is required for forward cutting than for reverse cutting.
2. To turn at the end of a row, push down on the handle bar to raise the front wheels off the lawn. This permits turning on the back wheels only and saves scuffing the lawn.
3. For cutting on a slope, it is usually best to move back and forth — not up and down hill.
4. When vacuuming a paved walk or driveway, first lower deck to lowest position. It is then best to run V180 or V210 forward along the extreme left hand side of the area to be cleaned. This will pick up same litter and windrow same litter to the right of the first swath. Then pull V180 or V210 backward over the windrowed litter. It will pick up most of it on this pass. Repeat above until walkway or driveway is cleaned.
5. To prolong the life and usefulness of your mower, it is a good practice to wash out all the grass that may be sticking to the underside of the deck.

Item	Part No.	Description	Qty.
1.	3-1128	Rear Wire	1
2.	1-2085	Gross Bag	1
3.	3-1127	Front Wire	1
4.	5-0293	Bag Chute Assembly, V210	1
4.	5-0679	Bag Chute Assembly, V210S	1
4.	5-0346	Bag Chute Assembly, V180	1
4.	5-0609	Bag Chute Assembly, V180S	1
5.	9-0196	5/16-18 Hex Nut	4
6.	3-1124	Side Bracket	1
7.	9-0361	5/16-18 x 5/8 SEMS	5
8.	5-0680	Side Chute Assembly, V210 Series	1
8.	5-0600	Side Chute Assembly, V180	1
8.	5-0610	Side Chute Assembly, V180S	1
9.	1-1079	Spring Washer	4
10.	9-0388	5/16-18 Dot "T" Nut	2
11.	1-1791	Bolt Retainer	4
12.	9-0377	7/16-20 Jom "L" Nut	4
13.	3-1121	Hub Cap	8
14.	1-1083	Front Wheels, V210, 7 x 1.50	2
14.	1-1083	Front Wheels, V180, 7 x 1.50	2
15.	3-1017	Wheel Arm, Front R. H., Rear L. H.	2
	6-0131	Shock Clutch Kit	1
16.	1-0008	Key	1
17.	2-1018	Shack Clutch	1
18.	3-1122	Clutch Washer	1
19.	1-1102	Fiber Washer	1
20.	9-0167	3/8-24 x 2 Cop Screw, Grade 5	1
21.	1-2063	Cone Washer	1
22.	1-1796	Fiber Washer	2
23.	1-8065	Cutter Blade, V210	1
23.	1-8075	Cutter Blade, V180	1
24.	3-7300	Front Bracket	2
25.	1-1749	Front and Rear Axle, V180	2
25.	2-1119	Front and Rear Axle, V210	2
26.	3-1123	Clomp	2
27.	3-1016	Wheel Arm, Front L. H., Rear R. H.	2
28.	3-1842	Bracket	1

Item	Part No.	Description	Qty.
29.	9-0379	8-18 x 3/4 SMS	1
30.	9-0385	Tab Washer	1
31.	1-2048	Insulator	1
32.	1-2049	Ground Contact	1
33.	9-0187	5/16 Lock Washer	4
34.	2-1737	Wheel Arm Spacer, V180	2
35.	3-7277	Rear Bracket, L. H.	1
36.	1-1078	Shoulder Screw	4
37.	1-0921	Height Latch, V210	4
37.	1-0921	Height Latch, Front, V180	2
38.	1-1093	Grip	4
39.	9-0242	5/16-24 x 1-5/8 Cap Screw, GR. 5	1
40.	9-0188	5/16 SAE Washer	7
41.	9-0324	3/8-16 x 1 St. Screw	2
42.	5-9517	Deck Assembly, V210	1
42.	5-9520	Deck Assembly, V180	1
43.	3-7275	Rear Bracket, R. H.	1
44.	9-0227	5/16-24 x 5/8 HHCS	2
45.	3-7305	Roll Bar, V210	1
45.	1-8074	Roll Bar, V180	1
46.	1-1082	Rear Wheels, V210 — 8 x 1.75	2
46.	1-1083	Rear Wheels, V180 — 7 x 1.50	2
47.	9-0189	5/16 Int.-Ext. Tooth Lock Washer	2
48.	1-0974	5/16-24 Weld Nut	2
49.	9-0211	5/16-18 x 1-1/2 HHCS (V180)	2
50.	3-7333	Lower Handle Stationary, V210	2
50.	3-7332	Lower Handle Stationary, V180	2
51.	9-0095	1/4-28 Hex Nut	3
52.	3-7331	Lower Handle Pivoting	1
53.	1-0098	Clip, Throttle Control	2
54.	1-1028	1/4-28 x 1 1/2 Curved Head Bolt	2
55.	1-8088	Throttle Control	1
56.	5-0601	Upper Handle	1
57.	1-1103	Spacer	2
58.	9-0053	1/4 Internal Tooth Lock Washer	3
59.	1-1125	Bearing	8
60.	5-0678	Interlock Assembly	1
61.	5-0615	Wing Nut	2
62.	1-1780	Nylon Ring	2
63.	9-0015	1/4-20 x 1 3/4 Carriage Bolt	2
64.	3-9572	Side Chute Extension	1
65.	9-0013	No. 10 Fine Hex Nut	4
66.	9-0011	No. 10 Internal Tooth Lock Washer	4

67.	9-0007	10-32 x 5/16 RHMS	4
68.	3-1801	Clip	1
69.	9-0383	5/16-18 x 1 Corr. Bolt	1
70.	3-1762	Guard, V180 Series	1
70.	3-1763	Guard, V210 Series	1
71.	9-0041	1/8 x 1 Cotter Pin	2
72.	1-2076	Rear Height Latch, V180	2
73.	9-0111	1/4-28 x 1-3/4 HHCS	1

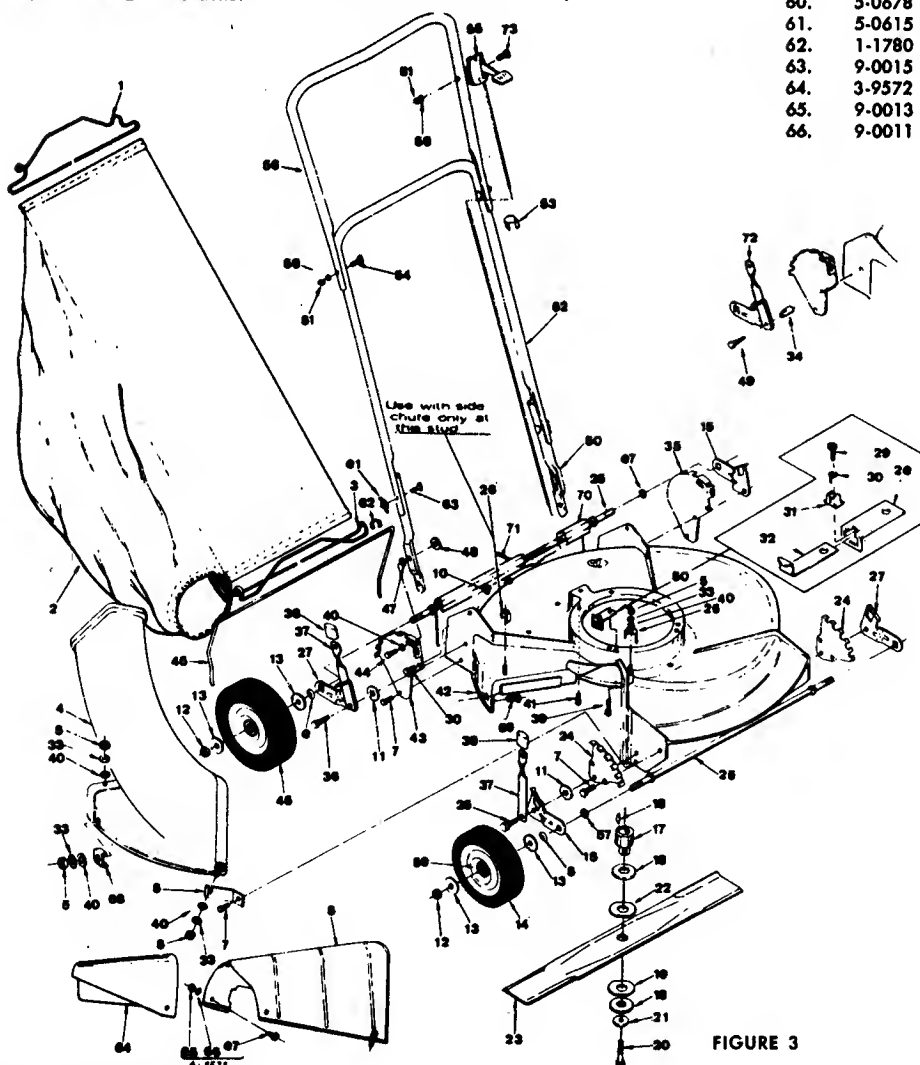


FIGURE 3

ITEMS NOT SHOWN ON V180 OR V210

Part No.	Description	Qty.
3-7351	Heat Shield	1
9-0457	Int. Tooth Lock Washer	1

ITEMS NOT SHOWN ON V180S OR V210S

Part No.	Description	Qty.
3-7351	Heat Shield	1
1-1770	Battery Assembly	1
1-1789	Battery Charger	1
1-1790	Battery	1
1-1167	Switch Key	2
3-1141	Switch Mounting Plate	1
1-1139	Switch	1
5-7081	Battery Clamp	1
1-1141	Harness Assembly	1

ITEMS NOT SHOWN ON V2104

Part No.	Description	Qty.
3-7351	Heat Shield	1

# ***Operator's Manual***

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# **Snapper Mower**

## **Models V210P – V210PS – V210P4**

### **SNAPPER MOWER GUARANTEE**

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We will replace or repair without charge any part or parts returned to us during the guarantee period, with transportation charges prepaid, that our inspection shows to have been defective in workmanship or material when shipped from the factory.

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## **McDONOUGH POWER EQUIPMENT, INC.**



**McDONOUGH, GA., U. S. A., 30253**

# Assembly, Operation and Service Instructions for V210P – V210PS – V210P4 SNAPPER MOWER

## IMPORTANT

### TRAINING

1. Read the Operating and Service Instruction Manual carefully. Be thoroughly familiar with the controls and proper use of the equipment.
2. Never allow children to operate a power mower.
3. Keep the area of operation clear of all persons, particularly small children, and pets.

### PREPARATION

1. Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wire, bones and other foreign objects.
2. Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.
3. Check fuel before starting engine. Do not fill gasoline tank indoors, when engine is running, or while engine is still hot. Wipe off any spilled gasoline before starting engine.
4. Never attempt to make a wheel height adjustment while the engine (motor) is running.
5. Mow only in daylight or in good artificial light.
7. Never operate equipment in wet grass. Always be sure of your footing; keep a firm hold on the handle and walk; never run.

### OPERATION

1. Do not change engine governor settings or overspeed engine.
2. Do not put hands or feet near or under rotating parts. Keep clear of discharge at all times.
3. Stop blade(s) when crossing gravel drive, walks or roads.
4. After striking a foreign object, stop the engine (motor), remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

5. If the equipment should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
6. Stop engine (motor) whenever you leave the equipment, before cleaning mower housing, and when making any repairs or inspection.
7. When cleaning, repairing or inspecting, make certain blade and all moving parts have stopped. Disconnect spark plug wire and keep wire away from plug to prevent accidental starting.
8. Do not run engine indoors.
9. Shut engine (motor) off and wait until blade comes to a complete stop before removing grass catcher and/or unclogging chute.
10. Mow across the face of slopes, never up-and-down. Exercise caution when changing direction on slopes. Do not mow excessively steep slopes.
11. NEVER operate mower without proper guards, plates or other safety protective devices in place.
12. Keep washout parts and other mower housing service openings closed when mowing.

### MAINTENANCE AND STORAGE

1. Check blade and engine mounting bolts at frequent intervals for proper tightness.
2. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
3. Never store equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
4. To reduce fire hazard keep engine free of grass, leaves or excessive grease.
5. Check grass catcher bags frequently for wear or deterioration. Replace with new bags for safety protection.

### INSTALLATION OF HANDLES:

1. Place lower handle, Item No. 14, Page 4, in groove of lower handle stationary, Item No. 30. Secure with two 1/4-28 x 1-1/2 hex head cap screws, Item No. 16, two 1/4 internal tooth lock washers, Item No. 17, and two 1/4-28 hex nuts, Item No. 15.
2. Fasten upper handle, Item No. 18, to lower handle, Item No. 14, using two 1/4-28 x 1-1/2 hex head cap screws, Item No. 16, two 1/4 internal tooth lock washers, Item No. 17, and two 1/4-28 hex nuts, Item No. 15.
3. Install upper speed lever, Item No. 27, through hole in speed sector, which is welded to the upper handle, and into sleeve, Item No. 97.
4. Fasten throttle control, Item No. 25, to outside of upper handle, using one 1/4-28 x 2 hex head cap screw, Item No. 91, one 1/4 internal tooth lock washer, Item No. 17, and one 1/4-18 hex nut, Item No. 15. Install throttle control clips, Item No. 28.
5. Fasten upper pull rod, Item No. 102, to clutch lever, Item No. 21, by placing end with bend up through hole in clutch lever. Loosen hex head screw, Item No. 93. Slide lower pull rod, Item No. 26, down, push down on hook spring, Item No. 29, and fasten end of hook spring into slot in bell crank, Item No. 58, Page 3.

### ADJUSTMENT OF SPEED LEVER:

Set speed lever, Item No. 27, in highest speed on speed selector. Move driven disc assembly, Item No. 38, Page 3, to left of machine until clutch rod, Item No. 35, hits left rear wheel bracket. Included in hardware bag is a red gauge. Lift up an lower speed lever, Item No. 101, until gauge will fit between sleeve, Item No. 97, and anchor lever, Item No. 33. Tighten the two upper set screws, Item No. 96, Page 4.

### ADJUSTMENT OF PULL ROD:

Set speed lever, Item No. 27, in low speed. Place gauge at edge of depression in drive disc assembly, Item No. 50. Pull up an lower pull rod, Item No. 26 until rubber tire makes contact with gauge. Tighten the hex nut on the carriage bolt, Item No. 93, Page 4. Install clip an pull rod and fasten to upper handle between the clutch lever and speed selector. In the event the gauge is lost, place two nickels together and use as a gauge.

### INSTALLATION OF GRASS CATCHER:

1. Disconnect spark plug.
2. Place front bag support, rail bar, Item No. 10, with off-set an right hand side into slots in rear wheel brackets, Item Nos. 20 and 48. Top part will lay down close to engine. Raise up, allowing ends to

drop through slots into holes below.

3. Place bag chute, Item No. 3, onto deck with stud nearest to "CAUTION" passing through hole in chute. Make sure captive carriage bolts drop into slots in the bracket, Item No. 5, next to the right front wheel. Place half ring clamp, Item No. 77, with slotted end to rear, over the front stud. Secure with 5/16 washer and 5/16-18 lock nut. Place 5/16-18 x 1 carriage bolt through hole in deck which is located at rear of discharge opening, and through hole in plastic chute. Secure with clip, Item No. 86, 5/16 washer and one 5/16-18 lock nut. NOTE: Head of carriage bolt must be to inside of deck.
4. Slip the ends of front wire, Item No. 11, through the front flap of the bag and hook over the rail bar, Item No. 10, as shown in figure 4. Slip the ends of the rear wire, Item No. 1, in the rear flap and hook over the top section of the lower handle pivoting, Item No. 14. If top of bag is not taut, remove and shift front and rear wires to inboard flaps and replace. Now slip inlet neck of bag, Item No. 2, over bag chute as far as possible. Do not allow side of bag to block discharge opening of chute. Stop engine and empty bag of grass clippings at rear opening before bag is over filled or bag chute will become clogged. NEVER ATTEMPT TO CLEAR BAG CHUTE IF CLOGGED UNLESS ENGINE IS STOPPED AND SPARK PLUG WIRE IS DISCONNECTED.

### INSTALLATION OF SIDE CHUTE:

1. Remove spark plug wire.
2. Remove grass catcher in reverse sequence of above installation.
3. Attach side chute extension, Item No. 88, to side chute, Item No. 7, using four 10/32 hex nuts, four 10/32 x 5/16 RHMS and four No. 10 internal tooth lock washers. NOTE: Head of bolts must be to inside of chute. See illustration.
4. Grip metal side chute, Item No. 7, with both hands and slip large slotted hole over mounting key on the deck. Slightly squeeze together and slip captive carriage bolt into slot in bracket, Item No. 5, at right front wheel while holding the slotted hole on the deck key.
5. Use one of the half clamps, Item No. 77, to hold the top down at the front stud. Use the other half round clamp, Item No. 77, to go over the rear stud and into the small slot in the side chute, Item No. 7. Fasten with three 5/16 flat washers and three 5/16-18 hex lock nuts.

### ENGINE CARE AND OPERATION:

1. FILL ENGINE WITH OIL BEFORE CRANKING.
2. Refer to engine manual furnished with this packet of instructions, to oil, fuel, and maintain the engine properly.



3. NEVER PLACE MOWER ON ITS LEFT HAND SIDE WITH SPARK PLUG POINTED DOWNWARD AS THIS WILL ALLOW THE ENGINE OIL TO RUN OUT THROUGH THE VALVE TAPPET VENT. If left too long, oil could also leak past the piston into the cylinder.

#### LUBRICATION:

1. Change oil as specified in the engine manual.
2. Occasionally put a few drops of oil on all movable parts.

#### ADJUSTING CUTTING HEIGHT:

1. This mower has solid through axles, front and rear, to give superior strength and wheel alignment. Thus with the through axle design, it is necessary to walk the height latches one notch at a time when it is desired to change cutting height. NEVER UNLATCH BOTH SIDES AT THE SAME TIME.
2. When changing cutting heights, make sure that all latches are in matching slots. This results in the cutting blade being slightly higher in the rear to eliminate drag.

#### REFER TO PICTURES BELOW FOR PROPER INSTALLATION OF GRASS CATCHER AND SIDE CHUTE

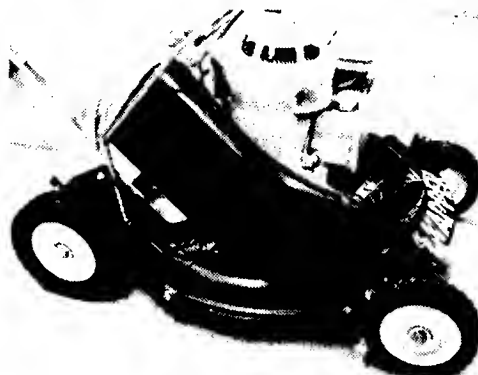


FIGURE 1

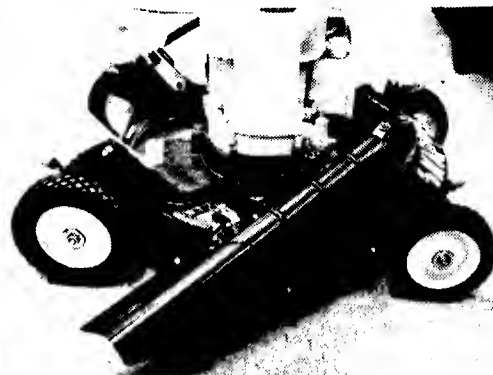


FIGURE 2

#### OPERATING TIPS

1. For forward speed, shift speed lever, Item No. 27, to slow speed and press in a clutch lever, Item No. 21. Desired speed then may be obtained by shifting speed lever. To stop forward motion of machine, release clutch lever handle, Item No. 21, and shift speed lever to neutral.
2. SNAPPER V210P will cut either forward or backward. However, due to the set of the blade, slightly less power is required for forward cutting than for reverse cutting.
3. To turn at end of row, push down on handle bars to raise front wheels off of the lawn. This permits turning on the back wheels only and saves scuffing the lawn.
4. For cutting on slopes, it is usually best to move side to side only — not up and down hill.
5. When vacuuming a paved walk or driveway, first lower deck to lowest position. It is then best to run V210P forward along the extreme left hand side of the area to be cleaned. This will pick up some litter and windrow same litter to the right of the first swath.
6. To prolong the life and usefulness of your mower, it is a good practice to wash out all the grass that may be sticking to the underside of the deck.

No.	Part No.	Description	Qty.
1.	1-1117	Belt	1
2.	9-0303	1/4-28 Hex Lock Nut	6
3.	3-1754	Transmission Bracket	1
4.	1-1133	Plug	1
5.	5-0263	Long Axle Assembly	1
6.	2-1131	Long Axle	1
7.	1-0410	3/16 x 1-1/8 Roll Pin	1
8.	9-0042	1/8 x 3/4 Cotter Pin	1
9.	4-7714	Guard Structure	1
10.	5-0262	Short Axle Assembly	1
11.	2-1130	Short Axle	1
12.	1-1201	5/16-24 Hex Lock Nut	1
13.	1-1079	Spring Washer	1
14.	1-0936	Polly "V" Pulley	1
15.	1-1724	Spring Washer	1

#### TRANSMISSION ASSEMBLY 5-0633

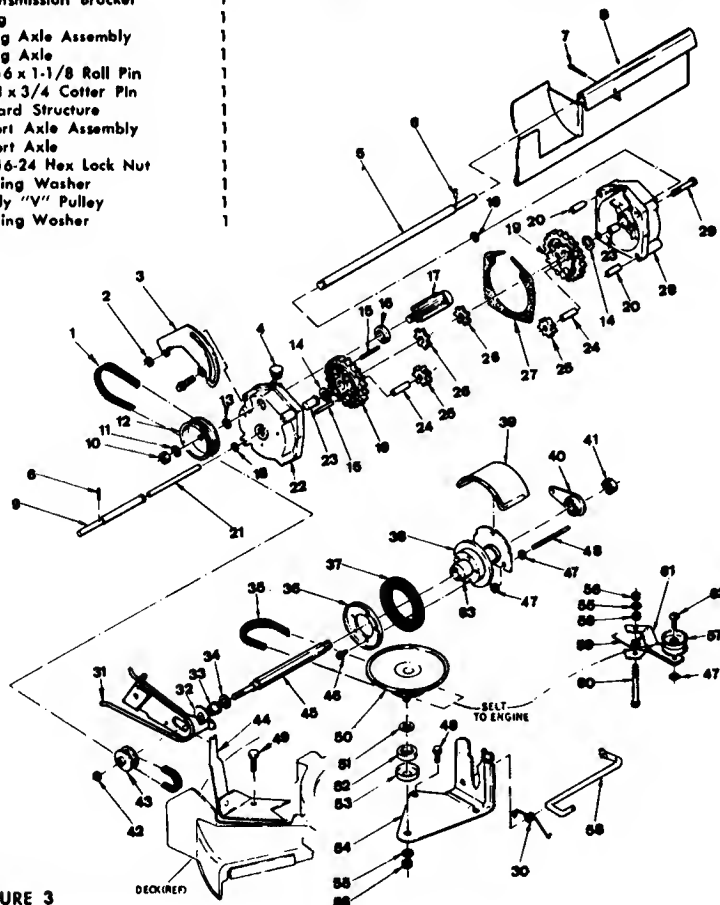


FIGURE 3

No.	Part No.	Description	Qty.
14.	2-0938	Thrust Washer	2
15.	1-0172	3/16 x 1-5/8 Roll Pin	2
16.	1-1767	Ball Bearing	1
17.	5-0305	Input Gear Assembly	1
18.	1-1179	Seal	2
19.	1-0919	46 Tooth Gear	2
20.	1-0826	Roll Pin	2
21.	2-1132	Shaft	1
22.	5-0268	Inboard Housing Assembly	1
23.	1-8048	Inboard Housing	1
24.	1-0932	Bearing	2
25.	1-1110	Shaft	2
26.	2-1115	12 Tooth Gear	2
27.	2-1116	Differential Gear Axle	2
28.	1-1774	Gasket	1
29.	5-0269	Outboard Housing Assembly	1
30.	1-8050	Outboard Housing	1
31.	9-0487	1 4-28 x 3-1/4 HMCS	4
32.	1-1884	Ball Crank Spring	1
33.	5-7087	Belt Guard Assembly	1
34.	1-2071	Thrust Washer	1
35.	1-2047	Bushing	1
36.	1-0816	Thrust Washer	1
37.	1-1887	3L 250 Engine Belt	1
38.	3-1013	Tire Plate	1
39.	1-0927	Driven Ring	1
40.	5-0630	Driven Disc Assembly	1
41.	1-1119	Cover	1
42.	5-0629	Bearing Holder Assembly	1
43.	9-0460	7/16-20 Hex Nut	1
44.	9-0289	3/8-24 Hex Lock Nut	1
45.	2-1709	Polly "V" Pulley	1
46.	5-0687	Belt Guard Assembly	1
47.	2-1708	Hex Shaft	1
48.	9-0307	10-24 x 1/2 SEMS	5
49.	9-0303	1/4-28 Hex Lock Nut	3
50.	1-1880	Clutch Rod	1
51.	9-0361	5/16-18 x 3/8 SEMS	4
52.	5-0634	Drive Disc Assembly	1
53.	9-0122	3/8 SAE Washer	1
54.	1-1032	Felt Seal	1
55.	3-1132	Bearing Shield	1
56.	3-9562	Deck Bracket	1
57.	9-0390	3/8 Internal Tooth L-Washer	2
58.	9-0155	3/8-24 Hex Nut	3
59.	1-0948	Idler Pulley	1
60.	1-1877	Ball Crank	1
61.	1-0947	Idler Spring	1
62.	9-0174	3/8-24 x 3 HMCS	1
63.	3-1006	Idler	1
64.	9-0107	1/4-28 x 1-1/4 HMCS	1
65.	1-1873	Shifter Cone	1



No.	Part No.	Description	Qty.	No.	Part No.	Description	Qty.	No.	Part No.	Description	Qty.
1.	3-1128	Rear Wire	1	30.	3-7333	Lower Handle, Stationary	2	56.	3-7300	Front Bracket	2
2.	1-1098	Grass Bag	1	31.	9-0189	5/16 Int.-Ext. Tooth L'-Washer	2	57.	1-1103	Spacer	1
3.	5-0293	Bag Chute Ass'y., V210P	1	32.	9-0388	5/16-18 Dat "7" Nut	1	58.	3-1017	Wheel Arm, Front, R. H.	1
4.	5-0679	Bag Chute Ass'y., V210PS	1	33.	3-1755	Anchor Lever	1	59.	1-1079	Spring Washer	2
5.	9-0196	5/16-18 Hex Nut	4	34.	3-1811	Holder Half	1	60.	3-1121	Front Hub Cap	4
6.	3-1124	Side Bracket	1	35.	1-1880	Clutch Rod	1	61.	1-1083	Front Wheel, 7 X 1.50	2
7.	9-0361	5/16-18 x 5/8 SEMS S7	9	36.	1-1977	Clutch Rod Clip	1	62.	1-1125	Bearing	4
8.	5-0302	Side Chute Assembly	1	37.	1-2093	Spring	2	63.	9-0377	7/16-20 Jam Lock Nut	2
9.	1-0945	Rear Wheel	2	38.	3-1756	Bell Crank Mount	1	64.	9-0167	3/8-24 x 2, GR 5 Cap Screw	1
10.	1-1113	Plastic Hub Cap	2	39.	9-0197	5/16-18 Jam Nut	1	65.	1-2063	Cane Washer	1
11.	3-7305	Roll Bar	1	40.	1-0974	5/16-24 Weld Nut	1	66.	3-1122	Clutch Washer	2
12.	3-1127	Front Wire	1	41.	1-1093	Grip	4	67.	1-1102	Fibre Washer	1
13.	9-0302	1/4-20 x 3/8 HWS7	1	42.	1-0921	Height Latch	4	68.	1-8065	Cutter Bar	1
14.	1-1879	Grip	1	43.	1-1095	3/4 Special Washer	2	69.	2-1018	Shack Clutch Hub	1
15.	3-7331	Lower Handle	1	44.	3-1018	Wheel Arm, Rear, R. H.	1	70.	1-0008	Key	1
16.	9-0095	1/4-28 Hex Nut	5	45.	1-0953	Bearing	2	71.	9-0471	1/4-20 x 5/16 Socket Head	1
17.	9-0528	1/4-28 x 1-1/2 HMCS, Gr. 5	4	46.	1-1791	Bolt Retainer	5			Set Screw	1
18.	9-0053	1/4 Internal Tooth L'-Washer	5	47.	9-0227	5/16-24 x 5/8 HMCS	1	72.	2-1707	Engine Pulley, 3-1/2 H.P.	1
19.	4-9565	Upper Handle Structure	1	48.	3-7308	Rear Bracket, R. H.	1	73.	1-0783	Hi-Pra Key	1
20.	9-0489	Push Nut	1	49.	1-1025	"O" Ring	1	74.	2-1119	Front Axle	1
21.	3-7309	Rear Bracket, L. H.	1	50.	9-0011	No. 10 Int. Tooth L'-Washer	4	75.	3-1856	Clamp	2
22.	3-1156	Clutch Lever	1	51.	1-1885	Bearing	1	76.	3-1016	Wheel Arm, Front, L. H.	1
23.	1-1886	Pin	1	52.	1-1078	5/16-18 Shoulder Screw	4	77.	3-1123	Clamp	2
24.	3-1019	Wheel Arm Rear, L. H.	1	53.	9-0324	3/8-16 x 1 HWS7	2	78.	5-0678	Interlock Assembly	1
25.	9-0399	10-24 Hex Nut	1	54.	9-0240	5/16-24 x 1-1/4 HMCS	1	79.	3-1842	Bracket	1
26.	1-8088	Throttle Control, 3 1/2 H.P.	1	55.	9-0359	5/16-24 x 1-5/8 HMCS, Gr. 5	1	80.	1-2049	Contact	1
27.	1-2073	Lower Pull Rod	1			(Manual Start)	1	81.	9-0385	Tab Washer	1
28.	1-2074	Upper Speed Lever	1			(Electric Start)	1	82.	1-2048	Insulator	1
29.	1-0098	Clip	2					83.	9-0379	8-18 x 3/4 Sheet Metal Screw	1
	1-1878	Hook Spring	1					84.	9-0383	5/16-18 x 1 Carriage Bolt	1

85.	3-7311	Deck	1
86.	3-1801	Clip	1
87.	1-1780	Nylon Ring	2
88.	3-9572	Side Chute Extension	1
89.	9-0007	10/32 x 5/16 RHMS	4
90.	9-0013	10/32 Hex Nut	4
91.	9-0112	1/4-28 x 2 HMCS	1
92.	9-0222	5/16-24 Lock Nut	2
93.	9-0530	10-24 x 1/2 Carriage Bolt	1
94.	1-1796	Fibre Washer	2
95.	1-1982	Grip	1
96.	9-0526	1/4-20 x 3/8 Sq. Hd. Set Screw	4
97.	2-1739	Sleeve	1
98.	9-0187	5/16 Lock Washer	4
99.	9-0188	5/16 SAE Washer	4
100.	2-1740	Spacer	1
101.	1-2075	Lower Speed Lever	1
102.	1-2072	Upper Pull Rod	1
103.	1-2070	Bushing	2
104.	3-1809	Holder Half	1

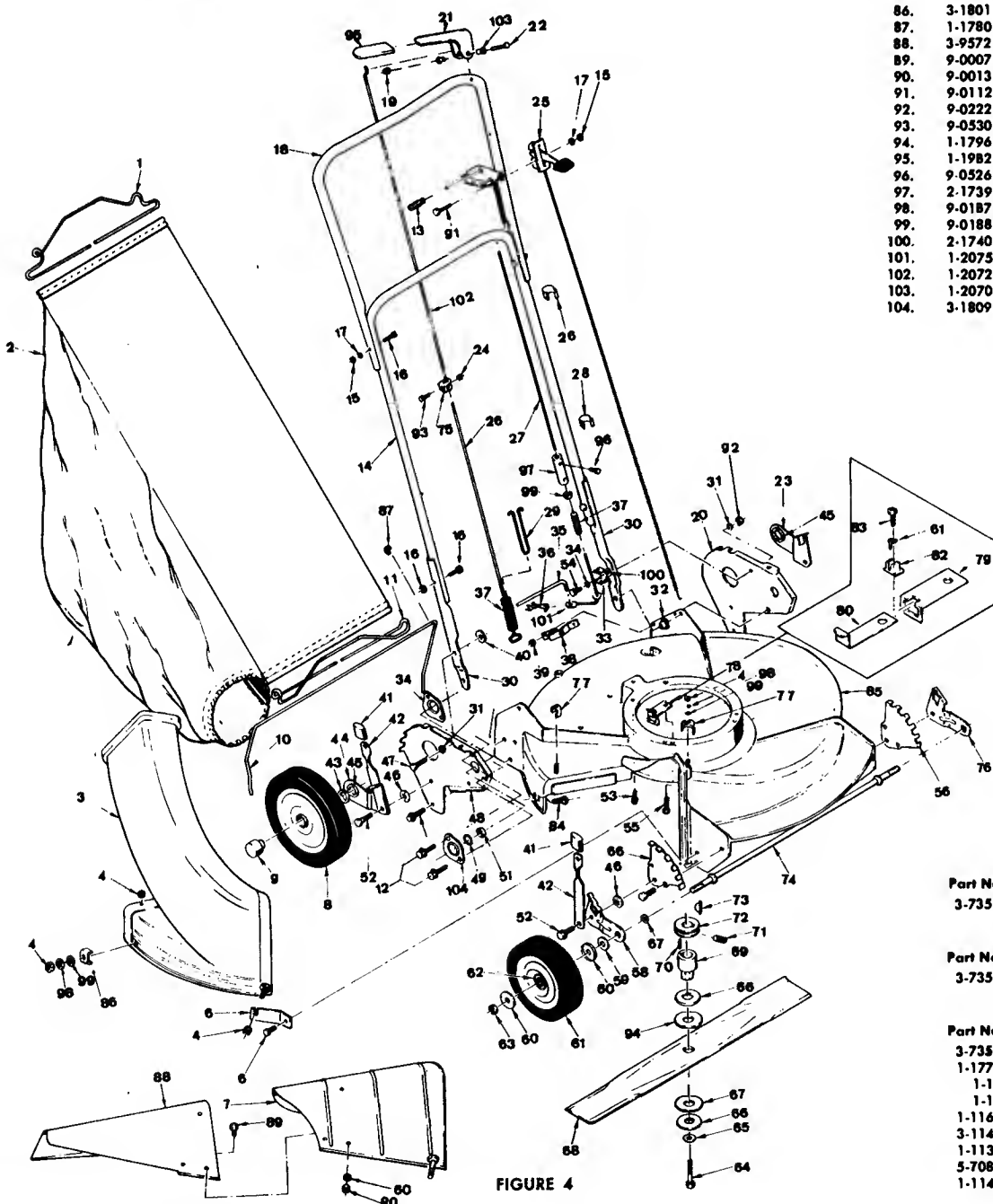


FIGURE 4

ITEMS NOT SHOWN ON V210P

Part No.	Description	Qty.
3-7351	Heat Shield, 3 1/2 H.P.	1

ITEMS NOT SHOWN ON V210P4

Part No.	Description	Qty.
3-7351	Heat Shield, 4 H.P.	1

ITEMS NOT SHOWN ON V210PS

Part No.	Description	Qty.
3-7351	Heat Shield	1
1-1770	Battery Assembly	1
1-1789	Battery Charger	1
1-1790	Battery	1
1-1167	Switch Key	1
3-1141	Switch Mounting Plate	1
1-1139	Switch	1
5-7081	Battery Clamp	1
1-1141	Harness Assembly	1

# OPERATOR'S MANUAL

# SNAPPER MOWER

MODELS SV181 — V181 — V181S  
SV211 — V211 — V211S — V2114

## IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** Failure to comply with the following instructions may result in serious injury to the operator or other persons. The owner of the mower must understand these instructions and, furthermore, must allow only persons who understand these instructions to operate the mower. Any person operating the mower must be of sound mind and body and must not be under the influence of any substance which might impair vision, dexterity, or judgement.

### TRAINING

1. Read this Manual carefully. Be thoroughly familiar with the controls and proper use of the mower.
2. Never allow children to operate a power mower.
3. Keep the area of operation clear of all persons, particularly small children, and pets.

### PREPARATION

1. Never operate mower without proper guards, plates, safety switches, or other safety protective devices in place and properly connected. Inspect to determine that these safety devices are installed properly, are in good repair, and operate properly. If the condition or operation of these devices are questionable, they must be repaired or replaced before using the mower.
2. Thoroughly inspect the area where the mower is to be used and remove all stones, sticks, wire, bones and other foreign objects. Also note the location of holes, stumps, and other possible hazards.
3. Do not operate mower when barefoot or wearing open sandals. Always wear substantial footwear and long pants.
4. Fill gasoline tank before starting engine. Use approved gasoline container. Do not smoke near open gasoline container. Do not fill gasoline tank indoors or when engine is running. Allow engine to cool for at least ten minutes before refilling. Wipe off any spilled gasoline before starting engine. Do not run engine indoors.
5. Never attempt to make a wheel height adjustment while the engine is running.
6. When mowing over rough ground or in tall grass, mower must be set in highest cutting position.
7. Mow only in daylight or in good artificial light.
8. Never operate mower in wet grass. Always be sure of your footing; keep a firm hold on the handle and walk; never run.

### OPERATION

1. Do not change engine governor settings or overspeed engine.
2. Do not put hands or feet near or under rotating parts. Keep clear of discharge area while engine is running.
3. Stop engine when crossing gravel drives, walks, or roads, and under any conditions where thrown objects might be a hazard.
4. After striking a foreign object or if mower vibrates abnormally, stop the engine, disconnect and secure spark plug wire. Inspect the mower for any damage and repair the damage.
5. Stop engine whenever you leave the operating position behind the handle for any reason, including emptying grass bag and making any adjustments, repairs, or inspections.
6. Before cleaning, repairing or inspecting, make certain blade and all moving parts have stopped. Disconnect and secure spark plug wire away from plug to prevent accidental starting.
7. Stop engine and wait until the blade comes to complete stop before removing grass bag and/or unclogging chute.
8. Mow across steep slopes, never up-and-down. Exercise caution when changing directions on slopes. Do not mow excessively steep slopes.

### MAINTENANCE AND STORAGE

1. Keep all nuts, bolts, and screws tight to be sure mower is in safe operating condition.
2. Never store mower with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
3. To reduce fire hazard keep mower free of grass, leaves or excessive grease.
4. Check grass bag assembly frequently for wear or deterioration. Replace with new bag if loose seams or tears are evident. Replace slider or bag chute if broken or cracked.
5. Have your mower inspected and serviced each year by an authorized Snapper dealer. Determine if any additional devices are available which might upgrade the safety of your mower.
6. Factory specified Snapper replacement parts must be used to assure adequate protection against injury.

# ASSEMBLY

## HANDLES

1. Pull up and back on lower handle pivoting, Item No. 52. Tighten the two 5/16" wing nuts, Item No. 61.
2. Fasten upper handle, Item No. 56, to lower handle pivoting, Item No. 52, using two 1/4"-28 x 1-1/2" hex head cap screw, Item No. 54, two 1/4" internal tooth lock washers, Item No. 58, and two 1/4"-28 hex nuts, Item No. 51.

## THROTTLE CONTROL

1. Fasten throttle control to outside of upper handle, Item No. 52, using one 1/4"-28 x 1-3/4" hex head cap screw, Item No. 21, one 1/4" internal tooth lock washer, Item No. 58, and one 1/4"-28 hex nut, Item No. 51.
2. Fasten throttle control conduit to handles using clips, Item No. 53.

## GRASS BAG

1. Disconnect spark plug wire.
2. Place roll bar, Item No. 45, with off-set side on right hand side into slots in rear wheel brackets, Item No. 43, top part will lay down close to engine, raise up allowing ends to drop through the slots into holes below.
3. Place grass chute, Item No. 4, onto deck with stud nearest to caution passing through hole in chute. Make sure captive carriage bolt drops into slot in the bracket, Item No. 6, next to the right front wheel. Also make sure that chute is pushed straight downward so that ground contact of the interlock switch, Item No. 28, deflects and permits engine to be started. Place clamp, Item No. 26, with slotted end to rear, over the front stud. Secure with 5/16" flat washer, 5/16" lock washer, and one 5/16 x 18 hex nut. See page 7.
4. Place 5/16"-18 x 1" carriage bolt, Item No. 60, through hole in deck which is located at rear of discharge opening, and through hole in plastic chute. Secure clip, Item No. 68, with one 5/16" flat washer, one 5/16" lock washer, and one 5/16" x 18 hex nut. (NOTE: Head of carriage bolt should be to inside of deck).
5. Slip the ends of front wire, Item No. 3, through the front flap of the bag and hook over the roll bar. Slip the ends of the rear wire, Item No. 1, into the rear flap of the bag and hook over top section of lower handle. Top of bag should be slack for best performance. Tension along top of bag may be relieved by bending roll bar backwards slightly. Tie slider cord to rear bag wire.
6. Slip the inlet end of the bag over chute as far as possible. Do not allow side of bag to block discharge opening of chute.

## SIDE CHUTE

1. Remove spark plug wire.
2. Attach side chute extension, Item No. 64, to side chute, Item No. 8, using four 10/32" hex nuts, Item No. 65, four 10/32" x 5/16" round head machine screws, Item No. 67, and four 10/32" internal

tooth lock washers. (NOTE: Heads of bolts must be to inside of chute). See page 7.

3. Grip metal side chute with both hands, slightly squeezing together, slip large slot over mounting key in deck, and captive carriage bolt into slot in bracket, Item No. 6. Also be sure that chute is pushed straight downward so that ground contact of interlock switch, Item No. 28, deflects and permits engine to be started.
4. Use one of the clamps, Item No. 26, to hold the top down at the front stud. Use the other clamp to go over the rear stud and into the small slot in side chute. Fasten with three 5/16" flat washers, three 5/16" lock washers and three 5/16"-18 hex nuts.

# ADJUSTMENT

## CUTTING HEIGHT

1. This mower has solid through axles front and rear to give superior strength and wheel alignment. Thus, with the through axle design, it is necessary to walk the height latches one notch at a time, side to side, when it is desired to change the cutting height.
2. Setting the rear height latches one notch lower than the front will improve performance by raising the rear of the deck.

## NOMINAL CUTTING HEIGHT — INCHES NOTCHES FROM THE TOP

	1	2	3	4	5	6
18" — 1"	1 1/2"	2"	2 3/8"	2 3/4"	3 1/8"	
21" — 7/8"	1 1/4"	1 3/4"	2 1/4"	2 3/4"	3 1/8"	

# OPERATION

## STARTING ENGINE

1. Fill engine with SAE detergent 30 Wt. engine oil.
2. Fill gas tank with leaded or unleaded regular gas.
3. Move throttle control to "START", place foot on deck that is marked "PLACE FOOT HERE WHEN CRANKING". Pull starter rope rapidly.
4. On electric start models, move throttle to start, turn key to start, release when engine starts.
5. IF ENGINE DOES NOT START, CHECK INTERLOCK SYSTEM.

## GRASS BAG

1. Grass bag should be emptied before chute is allowed to clog. When the chute begins to clog, air pressure ceases to push the top of the bag upward and the sound of the engine changes.
2. The first and most important step in emptying the grass bag is to STOP THE ENGINE AND PAUSE UNTIL THE BLADE STOPS ROTATING.
3. Stop engine. Grasp the front wire, Item No. 3, with

one hand, then the rear wire, Item No. 1, with the other hand, unhook and lift up, pulling the grass bag opening off of the grass chute.

4. To empty the grass bag, grasp the bag with one hand and pull off the slider, Item No. 22, with the other hand.
5. Replace the grass bag, re-fold the rear of the bag and replace slider before starting engine. See the illustration on page 6.

#### GENERAL

1. SNAPPER V211 will cut either forward or backward. However, due to the set of the blade, slightly less power is required for forward cutting than for reverse cutting.
2. To turn at end of row, push down on handle bars to raise front wheels off of the lawn. This permits turning on the back wheels only and saves scuffing the lawn.
3. For cutting on slopes, it is usually best to move side to side only — not up and down hill.
4. When vacuuming a paved walk or driveway, first lower deck to lowest position. It is then best to run the V211 forward along the extreme left hand side of the area to be cleaned. This will pick up some litter and windrow some litter to the right of the first swath.

## MAINTENANCE

#### GENERAL

1. Refer to engine manual furnished with this packet of instructions, to oil, fuel, and maintain the engine properly.
2. Never place mower on its left hand side with spark plug pointed downward as this will allow the engine oil to run out through the valve tappet vent. If left too long, oil could also leak past the piston into the cylinder.
3. Have your mower inspected and serviced each year at an authorized Snapper dealer. Determine if any additional devices are available which might upgrade the safety of your mower.
4. Factory specified Snapper replacement parts must be used to assure maximum protection against injury.
5. To prolong the life and usefulness of your mower, it is a good practice to wash out all of the grass that may be sticking to the underside of the deck.

#### LUBRICATION

1. Change oil as specified in engine manual.
2. Occasionally put a few drops of oil on all movable parts.
3. The ball bearing wheels have been factory greased and should not be greased unless removed.

## OPTIONAL ACCESSORIES

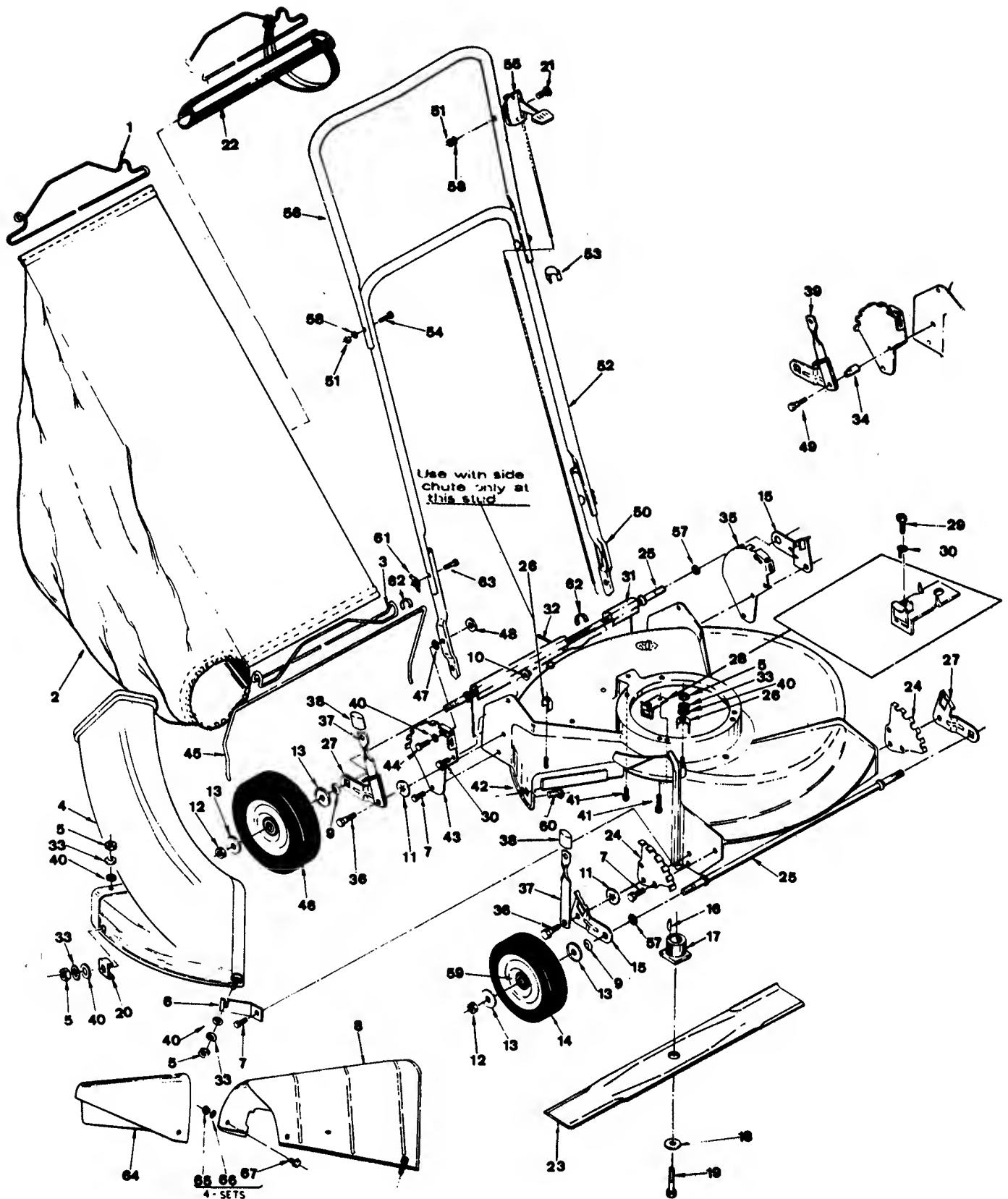
The optional accessories listed below are available from your Snapper dealer. These kits will add to your convenience and extend the use of the product. Any of these kits may be installed in less than ten minutes using standard household tools.

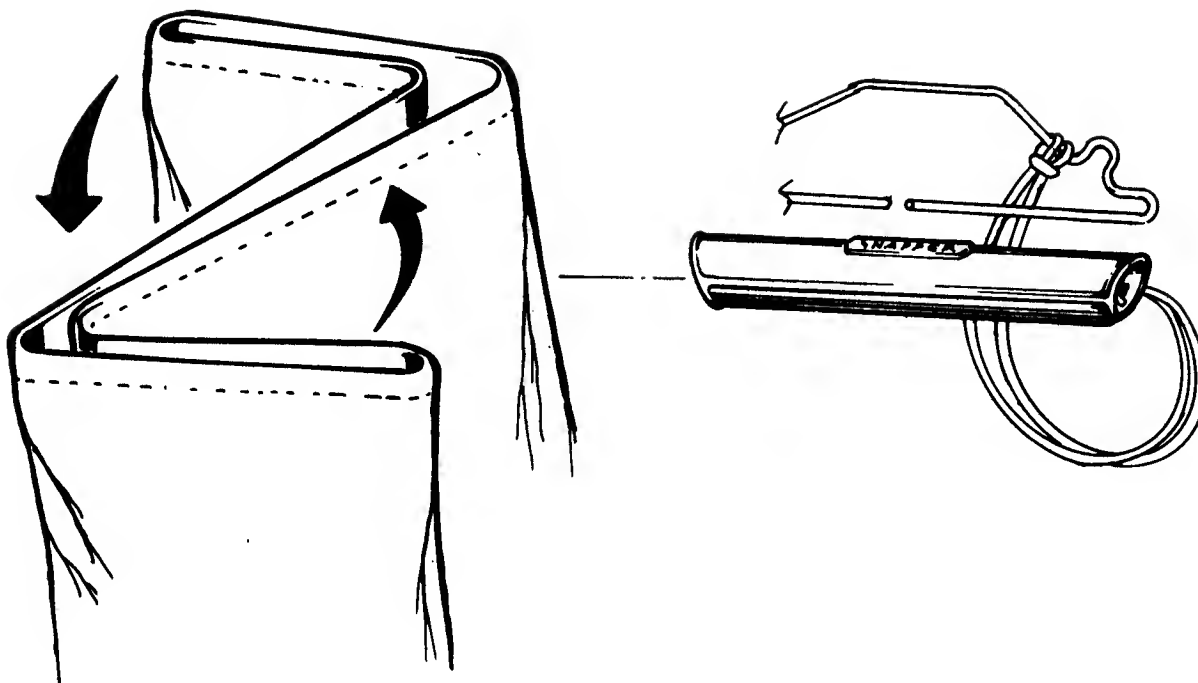
1. SIDE CHUTE KIT 6-0257 (for V181 series); 6-0258 (for V211 series). This kit consists of a metal chute and fasteners to permit conversion of the mower to side discharge operation.
2. ZIP KIT 6-0254. This kit consists of a plastic coated metal hoop which may be installed on the rear end of the grass bag. Its purpose is to permit fast transfer of the clippings directly into a standard disposable trash bag.
3. SNAPPERIZER KIT 6-0255 (for V211 series only). This kit consists of an expanded metal shredder plate, a bottom plate, and attaching hardware. Its purpose is to convert the mower into an outdoor vacuum and leaf shredder.
4. GRASS BAG KIT 6-0248 (for SV211 series) and 6-0259 (for SV181 series). This kit consists of a grass bag, roll bar, plastic chute, and fasteners to permit conversion of the mower to grass bagging operation.

## PARTS LIST

**MODELS SV181 - V181 - V181S - SV211 - V211 - V211S - V2114**

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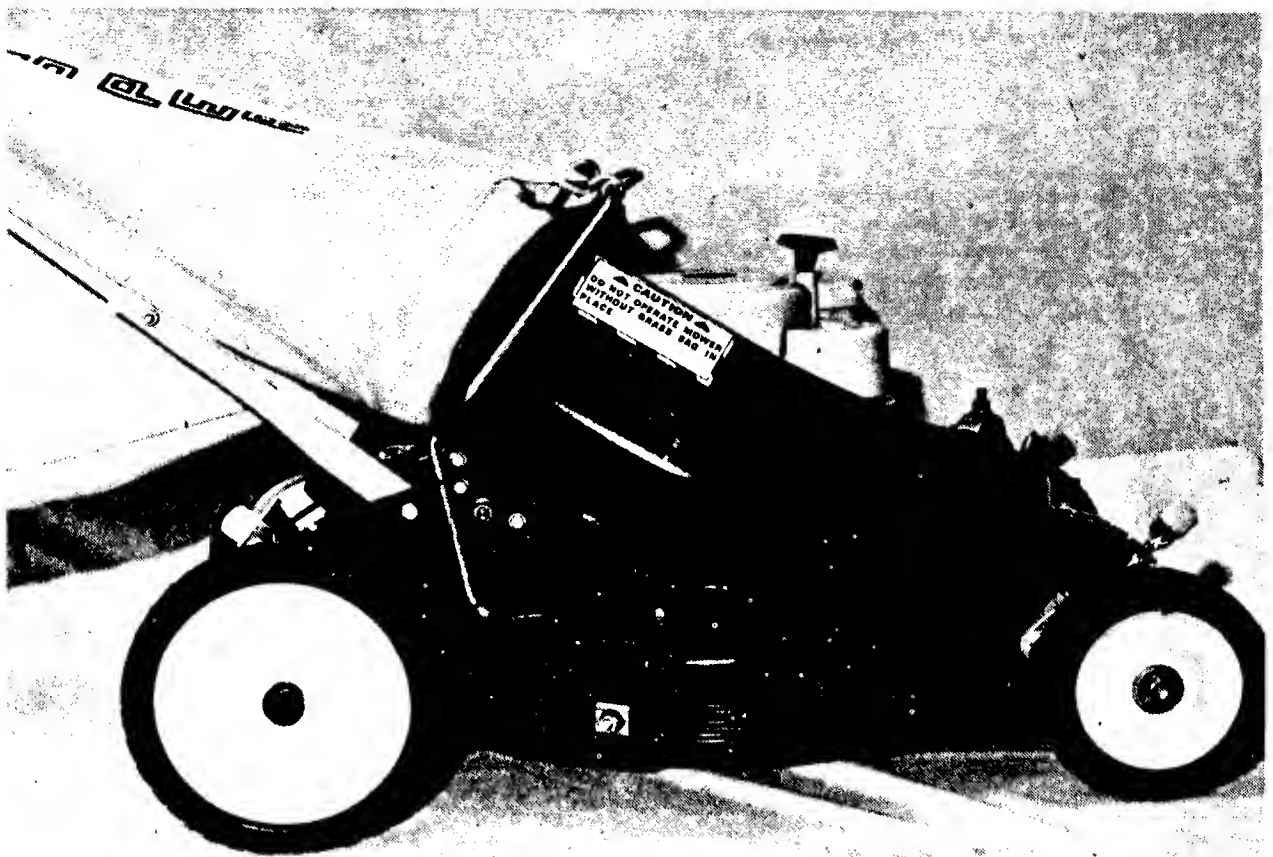


## BAG CLOSING INSTRUCTIONS

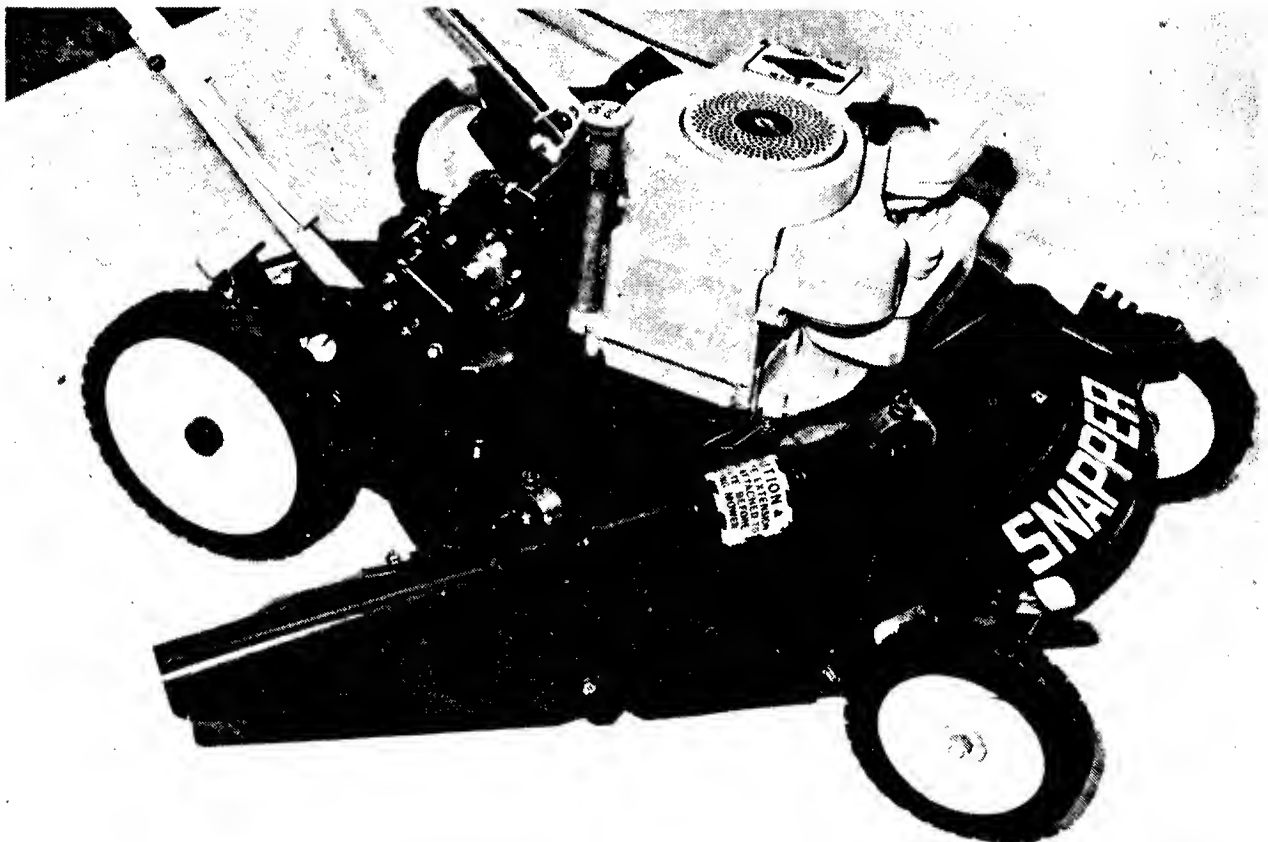
1. Fold into Z shape as shown, keeping edges aligned.
2. Hold edges together while pushing on slider. Be sure all edges are inside of slider.



# V SERIES



# SV SERIES



# THANK YOU FOR BUYING A SNAPPER PRODUCT!

We have designed and built this machine with utmost care, and it is intended to give you long and satisfactory service.

Any mechanical device can be potentially dangerous if not used properly. No accident prevention program can be successful without the wholehearted co-operation of the person who is directly responsible for the operation of the equipment. Study this operator's manual to learn the operation of the controls and observe all safety precautions. Only use this machine for the purpose it is intended. By following these instructions and safety precautions you should enjoy the long and trouble free operation you expect.

## LIMITED WARRANTY

For one year from purchase date for a non-commercial user, or for 30 days from purchase date for a commercial user, McDonough Power Equipment, Inc., through any factory authorized service dealer, will replace for the original purchaser, free of charge, any part or parts, found upon examination by the factory at McDonough, Georgia, to be defective in material or workmanship or both.

All transportation cost incurred by the purchaser in submitting material to an authorized service dealer for replacement under this warranty must be borne by the purchaser.

This warranty does not apply to engines and their components, as these items are warranted separately by their manufacturers. Neither does it apply to parts that have been damaged by accident, alteration, abuse, improper lubrication, normal wear, or other cause beyond our control.

There is no other express warranty.

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one year from purchase for non-commercial users, and for 30 days from purchase for commercial users and to the extent permitted by law any and all implied warranties are excluded. This is the exclusive remedy. Liabilities for consequential damages under any and all warranties are excluded.

**WARNING:** Use of replacement parts other than genuine Snapper parts may impair the safety of your mower and will void our warranty.

**IMPORTANT:** This warranty is void unless the warranty card attached is filled out completely and mailed to the Factory within 10 days of purchase date.

IT IS THE POLICY OF McDONOUGH POWER EQUIPMENT, INC. TO IMPROVE ITS PRODUCTS WHENEVER IT IS POSSIBLE AND PRACTICAL TO DO SO. WE RESERVE THE RIGHT TO MAKE CHANGES OR ADD IMPROVEMENTS AT ANY TIME WITHOUT INCURRING ANY OBLIGATION TO MAKE SUCH CHANGES ON PRODUCTS MANUFACTURED PREVIOUSLY.

## McDONOUGH POWER EQUIPMENT, INC.



McDONOUGH, GA., U. S. A., 30253

# OPERATOR'S MANUAL

# SNAPPER MOWER

MODELS  
V211P – V211PS – V211P4

## IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** Failure to comply with the following instructions may result in serious injury to the operator or other persons. The owner of the mower must understand these instructions and, furthermore, must allow only persons who understand these instructions to operate the mower. Any person operating the mower must be of sound mind and body and must not be under the influence of any substance which might impair vision, dexterity, or judgement.

### TRAINING

1. Read this Manual carefully. Be thoroughly familiar with the controls and proper use of the mower.
2. Never allow children to operate a power mower.
3. Keep the area of operation clear of all persons, particularly small children, and pets.

### PREPARATION

1. Never operate mower without proper guards, plates, safety switches, or other safety protective devices in place and properly connected. Inspect to determine that these safety devices are installed properly, are in good repair, and operate properly. If the condition or operation of these devices are questionable, they must be repaired or replaced before using the mower.
2. Thoroughly inspect the area where the mower is to be used and remove all stones, sticks, wire, bones and other foreign objects. Also note the location of holes, stumps, and other possible hazards.
3. Do not operate mower when barefoot or wearing open sandals. Always wear substantial footwear and long pants.
4. Fill gasoline tank before starting engine. Use approved gasoline container. Do not smoke near open gasoline container. Do not fill gasoline tank indoors or when engine is running. Allow engine to cool for at least ten minutes before refilling. Wipe off any spilled gasoline before starting engine. Do not run engine indoors.
5. Make sure that the traction drive deadman control is disengaged before starting engine.
6. Never attempt to make a wheel height adjustment while the engine is running.
7. When mowing over rough ground or in tall grass, mower must be set in highest cutting position.
8. Mow only in daylight or in good artificial light.
9. Never operate mower in wet grass. Always be sure of your footing; keep a firm hold on the handle and walk; never run.

### OPERATION

1. Do not change engine governor settings or overspeed engine.
2. Do not put hands or feet near or under rotating parts. Keep clear of discharge area while engine is running.
3. Stop engine when crossing gravel drives, walks, or roads, and under any conditions where thrown objects might be a hazard.
4. After striking a foreign object or if mower vibrates abnormally, stop the engine, disconnect and secure spark plug wire. Inspect the mower for any damage and repair the damage.
5. Stop engine whenever you leave the operating position behind the handle for any reason, including emptying grass bag and making any adjustments, repairs, or inspections.
6. Before cleaning, repairing or inspecting, make certain blade and all moving parts have stopped. Disconnect and secure spark plug wire away from plug to prevent accidental starting.
7. Stop engine and wait until the blade comes to complete stop before removing grass bag and/or unclogging chute.
8. Mow across steep slopes, never up-and-down. Exercise caution when changing directions on slopes. Do not mow excessively steep slopes.

### MAINTENANCE AND STORAGE

1. Keep all nuts, bolts, and screws tight to be sure mower is in safe operating condition.
2. Never store mower with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
3. To reduce fire hazard keep mower free of grass, leaves or excessive grease.
4. Check grass bag assembly frequently for wear or deterioration. Replace with new bag if loose seams or tears are evident. Replace slider or bag chute if broken or cracked.
5. Have your mower inspected and serviced each year by an authorized Snapper dealer. Determine if any additional devices are available which might upgrade the safety of your mower.
6. Factory specified Snapper replacement parts must be used to assure adequate protection against injury.

# ASSEMBLY

## HANDLES

1. Place lower handle, Item No. 21, Page 5, in groove of lower handle stationary; Item No. 27. Secure with two 1/4"-28 x 1-1/2" hex head cap screws, Item No. 17, two 1/4" internal tooth lock washers, Item No. 18, and two 1/4"-28 hex nuts, Item No. 16.
2. Fasten upper handle structure, Item No. 10, Page 5, to lower handle, Item No. 21, using two 1/4"-28 x 1-1/4" hex head cap screws, Item No. 19, two 1/4" internal tooth lock washers, Item No. 18, and two 1/4"-28 hex nuts, Item No. 16.

## THROTTLE CONTROL

1. Fasten throttle control, Item No. 15, Page 5, to outside of upper handle structure using one 1/4"-28 x 2" hex head cap screw, Item No. 14, one 1/4" internal tooth lock washer, Item No. 18, and one 1/4"-28 hex nut, Item No. 16.

## CLUTCH PULL ROD

1. Install clutch pull rod, Item No. 6, Page 5, into the clutch lever, Item No. 4, as shown in Illustration A. Secure with push nut, Item No. 2.
2. Hook eye of pull rod into wheel drive spring, Item No. 26, Page 7.
3. Slide vinyl cover, Item No. 26, Page 5, over spring and eye of clutch rod.
4. Fasten clutch rod to the outside of the handles using clip, Item No. 20, Page 5.

## SPEED CONTROL LEVER

1. Place lower portion of speed control lever, Item No. 74, Page 5, into slots of speed control anchor, Item No. 32.
2. Slide spring, Item No. 13, Page 5, and washer, Item No. 12, and vinyl cover, Item No. 11, over upper section of speed control lever. (NOTE: Spring and washer must go past 90 degree bend on upper end of speed control lever).
3. Compress spring and washer so that it will be under the speed selector when the speed control lever is placed into the slot.

## TRANSFER ROD

1. Install flat end of transfer rod, Item No. 53, Page 7, into slot of transfer rod connector, Item No. 52. Slide 1/4" rod clip, Item No. 55, Page 7, onto speed control lever. Place round end of transfer rod through speed control lever and fasten rod clip to transfer rod.

## GRASS BAG

1. Disconnect spark plug wire.
2. Place roll bar, Item No. 24, Page 5, with off-set on right hand side into slots in rear wheel brackets, Item Nos. 47 and 49 on Page 5. Top part will lay down close to engine. Raise up, allowing ends to drop through slots into holes below.
3. Place grass chute, Item No. 1, Page 7, onto deck with stud nearest to caution passing through hole in chute. Make sure captive carriage bolt drops into slot in the bracket, Item No. 7, Page 7, next to the

right front wheel. Also, make sure that chute is pushed straight downward so that ground contact of interlock switch, Item 71, deflects and permits engine to be started. Place clamp, Item No. 9, with slotted end to rear, over the front stud. Secure with 5/16" washer and 5/16" hex nut. See page 8.

4. Place 5/16" x 18 x 1" carriage bolt, Item No. 8, Page 7, through hole in deck which is located at rear of discharge opening, and through hole in plastic chute. Secure with clip, Item No. 5, 5/16" lock washer, Item No. 3, and 5/16" hex nut, Item No. 2. (NOTE: Head of carriage bolt should be on inside of deck).
5. Slip the ends of front wire, Item No. 25, Page 5, through the front flap of the bag and hook over the roll bar. Slip the ends of the rear wire, Item No. 1, into the rear flap of the bag and hook over top section of lower handle. Top of bag should be slack for best performance. Tension along top of bag may be relieved by bending roll bar backwards slightly. Tie slider cord to rear bag wire.
6. Slip the inlet end of bag over chute as far as possible. Do not allow side of bag to block discharge opening of chute.

## ADJUSTMENT

### SPEED LEVER

1. When speed lever, Item No. 7, Page 5, is in the highest position, the centerline of the rubber drive tire, Item No. 47, Page 7, Illustration G, should be 1/8" to 1/4" in from the outside edge of the flat driven disc, Item No. 57, Page 7, Illustration G. To adjust, loosen the 5/16" nut at the transfer rod connector, Item No. 52, Page 7, and slide connector on thrust plate arm. Re-tighten nut and check clearance after running engine.

### CLUTCH ROD TENSION

2. To check for proper tension on the clutch rod, Item No. 6, Page 5, slide vinyl cover, Item No. 26, Page 5, up on clutch rod. There should be 1/16" to 1/8" clearance between the top hook of the wheel drive spring, Item No. 26, Page 7, and the bottom of the eye of the clutch rod, when clutch lever is disengaged. To adjust, unhook spring from clutch rod and rotate outer spring over inner spring clockwise to reduce clearance and counter-clockwise to increase clearance. Re-install spring and vinyl cover.

### CUTTING HEIGHT

3. This mower has through axles front and rear to give superior strength and wheel alignment. Thus with the through axle design, it is necessary to walk the height latches one notch at a time, side to side when it is desired to change the cutting height. NEVER UNLATCH BOTH SIDES AT THE SAME TIME.

Setting the rear height latches one notch lower than the front will improve performance in heavy grass by raising the rear of the deck.

### NOMINAL HEIGHT OF CUT — INCHES NOTCHES FROM THE TOP

1	2	3	4	5	6
7 8"	1 1/4"	1 3/4"	2 1/4"	2 3/4"	3 1/8"

## OPERATION

### STARTING ENGINE

1. Fill engine with SAE detergent 30 Wt. engine oil.
2. Fill gas tank with leaded or unleaded regular gas.
3. Move throttle control to "START", place foot on deck that is marked "PLACE FOOT HERE WHEN CRANKING". Pull starter rope rapidly.
4. On electric start models, move throttle to start, turn key to start, release when engine starts.
5. **IF ENGINE DOES NOT START, CHECK INTERLOCK SYSTEM.**

### DRIVE SYSTEM

1. To engage drive system, grip clutch handle, Item No. 4, Page 5, against upper handle structure, Item No. 10. When handle is released, drive automatically disengages and mower goes into free wheeling for easy maneuvering.
2. To select ground speed, shift speed control lever, Item No. 74, Page 5, down for slow and up for fast. Shifting effort is minimum with engine running.

### GRASS BAG

1. Grass bag should be emptied before chute is allowed to clog. When the chute begins to clog, air pressure ceases to push the top of the bag upward and the sound of the engine changes.
2. The first and most important step in emptying the grass bag is to STOP THE ENGINE AND PAUSE UNTIL THE BLADE STOPS ROTATING.
3. Stop engine. Grasp the front wire, Item No. 25, with one hand, then the rear wire, Item No. 1, with the other hand, unhook and lift up, pulling the grass bag opening off of the grass chute.
4. To empty the grass bag, grasp the bag with one hand and pull off the slider, Item No. 73, Page 5, with the other hand.
5. Replace the grass bag, re-fold the rear of the bag and replace slider before starting engine. See instructions on bag.

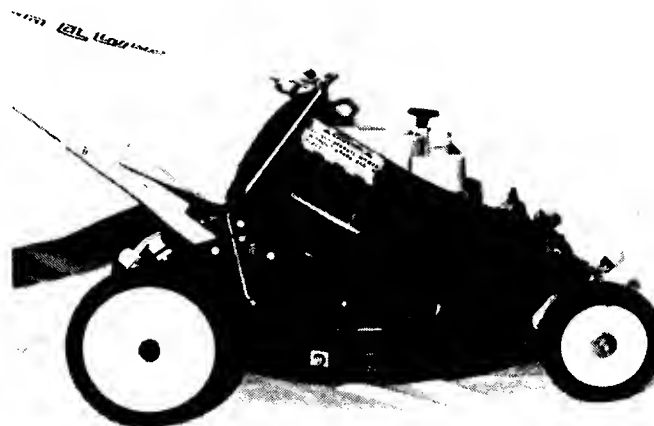
## MAINTENANCE

### GENERAL

1. Refer to engine manual furnished with this packet of instructions to oil, fuel, and maintain the engine properly.
2. Never place mower on its left hand side with spark plug pointed downward as this will allow the engine oil to run out through the valve tappet vent. If left too long, oil could also leak past the piston into the cylinder.
3. Have your mower inspected and serviced each year by an authorized Snapper dealer. Determine if any additional devices are available which might upgrade the safety of your mower.
4. Factory specified Snapper replacement parts must be used to assure maximum protection against injury.
5. OCCASIONALLY CHECK FOR WEAR ON THE RUBBER DRIVEN RING. WHEN RUBBER IS WORN WITHIN 1/16" OF METAL, DRIVEN RING SHOULD BE REPLACED TO PREVENT DAMAGE TO DRIVE DISC ASSEMBLY.
6. To prolong the life and usefulness of your mower, it is a good practice to wash out all of the grass that may be sticking to the underside of the deck.

### LUBRICATION

1. Change oil as specified in engine manual.
2. Occasionally put a few drops of oil on all moveable parts.
3. The ball bearing wheels have been factory greased and should not be greased unless removed.
4. Transmission assembly is pre-lubricated with four ounces of SNAPPER "00" GREASE, Part No. 1-1050. To check grease, remove plug, Item No. 78, Page 7. If no grease is visible on input gear assembly, Item No. 80, add grease to transmission and replace plug. The grease should be checked every 20 hours of operation.



# PARTS LIST

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1.	3-1128	Rear Wire	1	55.	9-0302	1/4-20 x 3/8" H.W.S.T.	2
2.	1-2134	Push Nut	1	56.	3-1809	Holder Half	1
3.	1-2135	Bushing	2	57.	9-0324	3/8-18 x 1" H.W.S. ST. Engine Bolt	3
4.	3-1881	Clutch Handle	1	58.	9-0377	7/16-20 Jam Lock Nut	2
5.	1-1982	Grip	1	59.	3-1121	Front Hub Cap	4
6.	1-2120	Clutch Pull Rod	1	60.	1-1083	Front Wheel, 7 x 1.50	2
7.	1-1886	Pin	1	61.	3-7300	Front Bracket	2
8.	9-0489	Push Nut	1	62.	3-1017	Wheel Arm, Front R.H.	1
9.	1-2070	Bushing	2	63.	2-1119	Front Axle	1
10.	4-9567	Upper Str. Handle	1	64.	2-9805	Deck	1
11.	1-1879	Grip	1	65.	3-1016	Wheel Arm, Front L.H.	1
12.	9-0188	5/16" Washer	1	66.	1-1079	Spring Washer	2
13.	1-2093	Spring	1	67.	9-0379	8-C x 3/4 SMS.	1
14.	9-0112	1/4-28 x 2" H.H.C.S.	1	68.	9-0385	No. 8 Tab Washer	1
15.	1-8088	Throttle Control, B. & S.	1	69.	5-0678	Interlock Assembly	1
15.	1-8099	Throttle Control, Tecumseh	1	70.	1-2110	Speed Control Lever	1
16.	9-0095	1/4-28 Hex Nut	5	71.	9-0238	5/16-24 x 1" H.H.C.S.	1
17.	9-0528	1/4-28 x 1 1/2" H.H.C.S., Gr. 5	2	72.	9-0368	5/16-18 x 3/4" H.W.S. ST.	2
18.	9-0053	1/4 Internal Tooth Lock Washer	4				
19.	9-0529	1/4-28 x 1 1/4" H.H.C.S., Gr. 5	2				
20.	1-0098	Clip	2				
21.	3-7331	Lower Handle Pivoting	1				
22.	1-2157	Grass Bag	1				
23.	1-1780	Nylon Ring	2				
24.	3-7305	Roll Bar	1				
25.	3-1127	Front Wire	1				
26.	1-2121	Vinyl Cover	1				
27.	3-7333	Lower Handle	2				
28.	9-0361	5/16 x 18 x 5/8 HWS ST.	4				
29.	9-0189	5/16 Int.-Ext. Tooth Lack Washer	2				
30.	9-0388	T-Nut	2				
31.	9-0222	5/16-24 Lock Nut	1				
32.	3-1755	Speed Control Anchor	1				
33.	9-0240	5/16-24 x 1 1/4" H.H.C.S.	1				
34.	1-0783	Hi - Pro - Key	1				
35.	2-1707	Engine Pulley	1				
36.	5-0723	Rear Wheel Arm Assembly, L.H.	1				
37.	1-0008	Key	1				
38.	1-2180	Blade Drive Hub	1				
39.	5-0711	Slider Assembly	1				
40.	1-8166	Blade	1				
41.	1-2063	Cone Washer	1				
42.	9-0523	3/8-24 x 1-1/2" Gr. 5 Cap Screw	1				
43.	1-0410	Roll Pin	2				
44.	5-0722	Rear Wheel Arm Assembly, R.H.	1				
45.	1-1093	Grip	4				
46.	1-0921	Height Latch	4				
47.	3-7308	Rear Bracket, R.H.	1				
48.	9-0197	5/16-18 Jam Nut	4				
49.	3-7309	Rear Bracket, L.H.	1				
50.	1-1791	Bolt Retainer	4				
51.	1-1078	5/16-16 Shoulder Screw	4				
52.	1-0935	3/4" Washer	2				
53.	1-1113	Rear Hub Cap	2				
54.	1-0945	Rear Wheel	2				

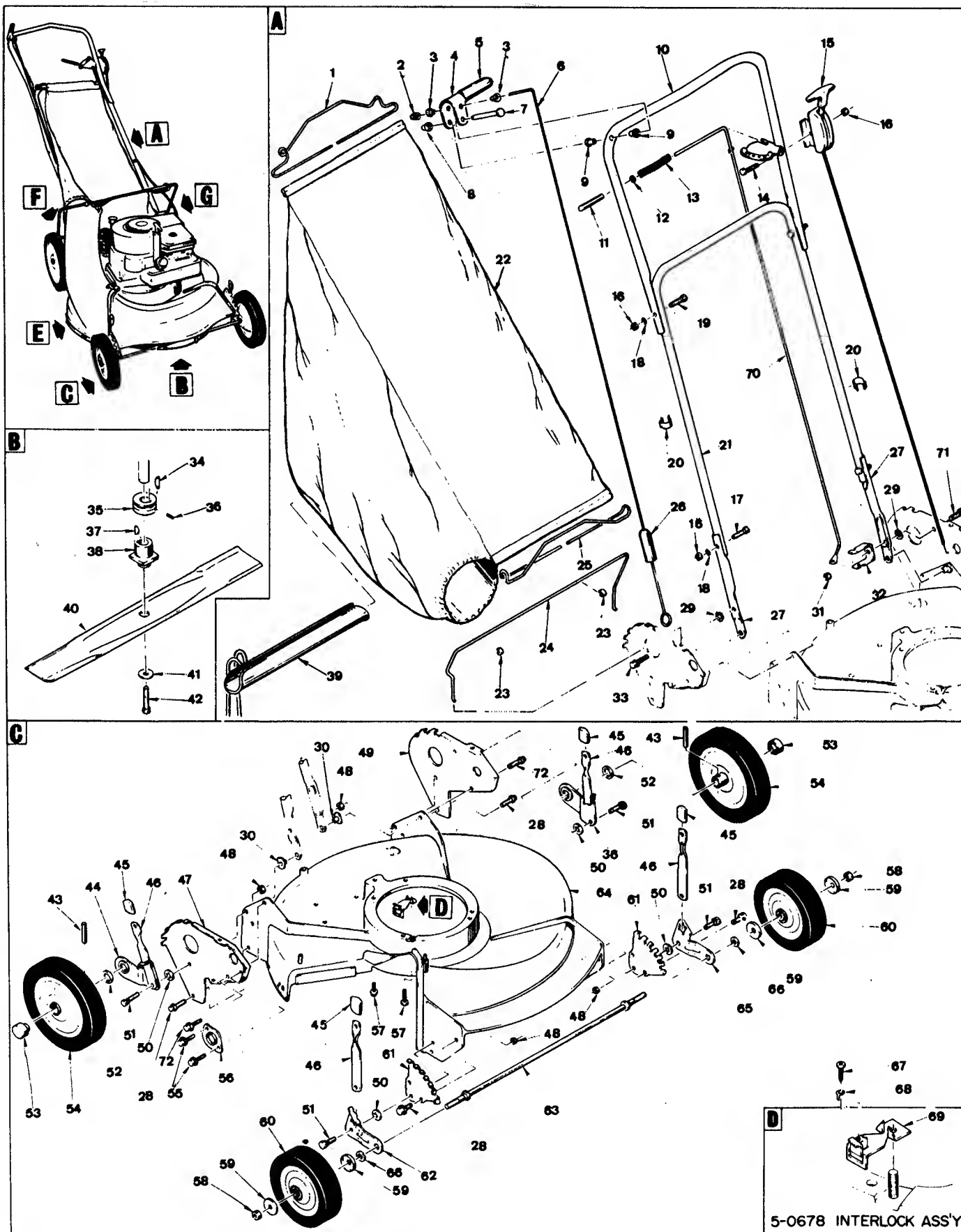
## ITEMS NOT SHOWN — BRIGGS AND TECUMSEH ELECTRIC

1-1762	Cover, Spark Plug	1
1-1789	Battery Charger	1
1-1790	Battery	1
1-1139	Switch W/Keys	1
1-8095	Wiring Harness	1
5-0705	Battery and Switch Bracket Assy.	1
1-1167	Key	1

## OPTIONAL ACCESSORIES

The optional accessories listed below are available from your Snapper dealer. These kits will add to your convenience and extend the use of the product. Any of these kits may be installed in less than ten minutes using standard household tools.

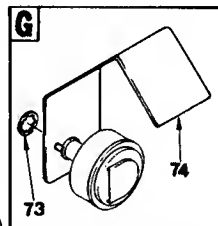
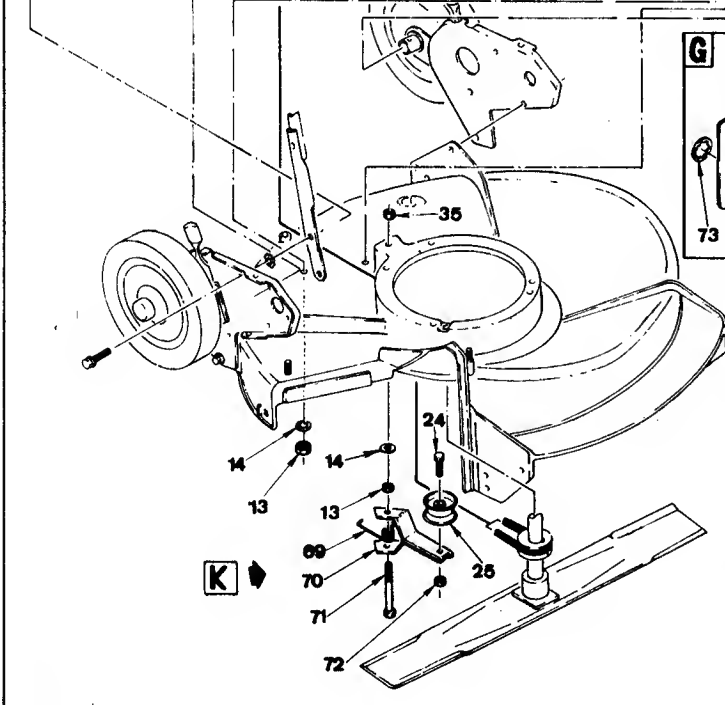
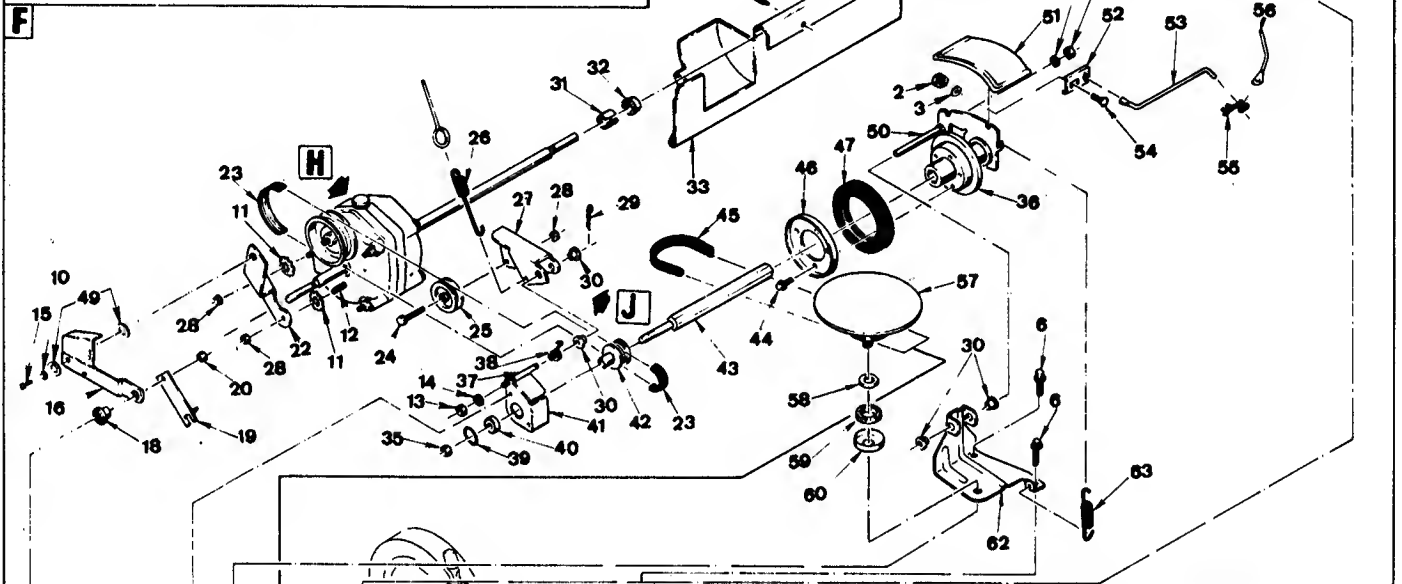
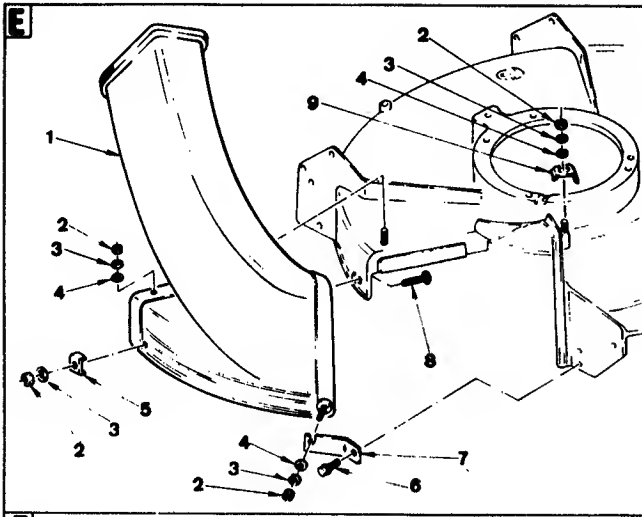
1. SIDE CHUTE KIT 6-0258. This kit consists of a metal chute and fasteners to permit conversion of the mower to side discharge operation.
2. ZIP KIT 6-0254. This kit consists of a plastic coated metal hoop which may be installed on the rear end of the grass bag. Its purpose is to permit fast transfer of the clippings directly into a standard disposable trash bag.
3. SNAPPERIZER KIT 6-0255. This kit consists of an expanded metal shredder plate, a bottom plate, and attaching hardware. Its purpose is to convert the mower into a combined outdoor vacuum and leaf shredder.





# PARTS LIST

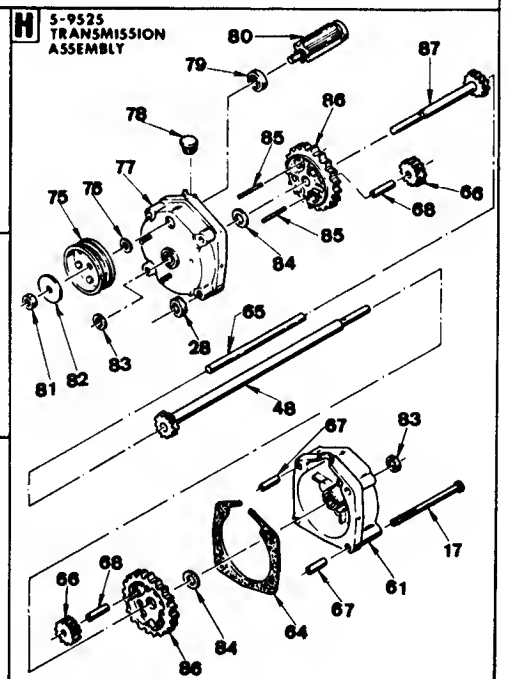
Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1.	5-0679	Grass Chute Assembly	1	56.	1-2110	Speed Control Lever	1
2.	9-0196	5/16-18 Hex Nut	5	57.	5-0702	Drive Disc Assembly	1
3.	9-0187	5/16 Lock Washer	5		3-1879	Optional Steel Drive Disc Cap	1
4.	9-0188	5/16 Flat Washer	3	58.	9-0122	3/8" SAE Washer	1
5.	3-1801	Clip	1	59.	1-1032	Felt Seal	1
6.	9-0361	5/16-18 x 5/8 SEMS ST.	3	60.	3-1132	Bearing Shield	1
7.	3-1124	Side Bracket	1	61.	5-0269	Outboard Housing Assembly	1
8.	9-0208	5/16-18 x 1 Carriage Bolt	1	62.	3-1875	Deck Bracket	1
9.	3-1123	Clomp	2	63.	1-2123	Spring-Wheel Drive	1
10.	9-0391	5/16 Internal Tooth Lock Washer	1	64.	1-1774	Gasket	1
11.	9-0189	5/16 Int.-Ext. Tooth Lock Washer	2	65.	2-1132	Shaft	1
12.	9-0535	1/4-28 x 1 H.H.C.S., Gr. 5	2	66.	2-1115	12 Tooth Gear	2
13.	9-0155	3/8-24 Hex Nut	3	67.	1-0826	Roll Pin	2
14.	9-0390	3/8 Internal Tooth Lock Washer	3	68.	1-1110	Shaft	2
15.	9-0534	5/16-18 x 3/8 HWST.	1	69.	1-2218	Idler Spring	1
16.	3-1880	Differential Link	1	70.	3-1006	Idler Bracket	1
17.	9-0487	1/4-28 x 3 1/4 H.H.C.S.	4	71.	9-0174	3/8-24 x 3 Hex Head Cop Screw	1
18.	1-2114	Differential Link Bushing	1	72.	9-0303	1/4-28 Hex Lock Nut	1
19.	3-1882	Lower Belt Guide	1	73.	9-0457	Internal Tooth Lock Washer	1
20.	9-0222	5/16-24 Hex Lock Nut	1	74.	3-7351	Heat Shield, Briggs Engine Only	1
21.	9-0095	1/4-28 Hex Nut	2	75.	1-2109	Polly V-Pulley - 3/4 O.D.	1
22.	4-0435	Differential Bracket	1	76.	1-1724	Spring Washer	1
23.	1-2119	Polly V Belt	1	77.	5-7093	Inboard Housing Assembly	1
24.	9-0107	1/4-28 x 1 1/4 H.H.C.S.	2	78.	1-1133	Plug	1
25.	1-2124	Idler Pulley	2	79.	1-1767	Ball Bearing	1
26.	1-2122	Spring-Clutch	1	80.	5-0305	Input Gear Assembly	1
27.	3-1877	Clutch Idler Arm	1	81.	1-1201	5/16-24 Hex Lock Nut	1
28.	9-0303	1/4 x 28 Hex Lock Nut	6	82.	1-1132	Clutch Washer	1
29.	9-0037	3/32 x 3/4 Catter Pin	1	83.	1-1179	Seal	2
30.	1-2117	Nylon Bushing	4	84.	2-0938	Thrust Washer	2
31.	1-2199	Axle Spacer	1	85.	1-0172	3/16 x 1 5/8" Roll Pin	2
32.	1-0694	Nylon Bushing	2	86.	1-0919	46 Tooth Gear	2
33.	3-9576	Rear Guard	1	87.	5-0262	Short Axle Assembly	2
34.	9-0042	1/8 x 1 1/4" Catter Pin	1				
35.	9-0289	3/8-24 Hex Lock Nut	1				
36.	5-7092	Driven Disc Assembly	1				
37.	1-2111	Idler Stud	1				
38.	1-2126	Idler Tension Spring	1				
39.	1-1025	O-Ring	1				
40.	1-1885	Bearing	1				
41.	3-1873	Halder Half	1				
42.	1-2140	Polly V-Pulley	1				
43.	2-1745	Hex Shaft	1				
44.	9-0307	10-24 x 1/2" SIMS	5				
45.	1-1887	Engine Belt	1				
46.	3-1013	Tire Plate	1				
47.	1-0927	Driven Ring	1				
48.	5-0263	Long Axle Assembly	1				
49.	1-1079	Spring Washer	2				
50.	1-2125	Thrust Plate Guide	1				
51.	1-2118	Tire Cover	1				
52.	3-1874	Transfer Rod Connector	1				
53.	1-2255	Transfer Rod	1				
54.	9-0316	5/16-18 x 3 4 Carriage Bolt	1				
55.	1-0937	1/4" Rod Clip — Right Arc	1				



**J** 5-0706 CLUTCH IDLER ASSEMBLY



**K** 5-0703 IDLER ASSEMBLY



## THANK YOU FOR BUYING A SNAPPER PRODUCT!

We have designed and built this machine with utmost care, and it is intended to give you long and satisfactory service.

Any mechanical device can be potentially dangerous if not used properly. No accident prevention program can be successful without the wholehearted co-operation of the person who is directly responsible for the operation of the equipment. Study this operator's manual to learn the operation of the controls and observe all safety precautions. Only use this machine for the purpose it is intended. By following these instructions and safety precautions you should enjoy the long and trouble free operation you expect.

### LIMITED WARRANTY

For one year from purchase date for a non-commercial user, or for 30 days from purchase date for a commercial user, McDonough Power Equipment, Inc., through any factory authorized service dealer, will replace for the original purchaser, free of charge, any part or parts, found upon examination by the factory at McDonough, Georgia, to be defective in material or workmanship or both.

All transportation cost incurred by the purchaser in submitting material to an authorized service dealer for replacement under this warranty must be borne by the purchaser.

This warranty does not apply to engines and their components, as these items are warranted separately by their manufacturers. Neither does it apply to parts that have been damaged by accident, alteration, abuse, improper lubrication, normal wear, or other cause beyond our control.

There is no other express warranty.

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one year from purchase for non-commercial users, and for 30 days from purchase for commercial users and to the extent permitted by law and all implied warranties are excluded. This is the exclusive remedy. Liabilities for consequential damages under any and all warranties are excluded.

**WARNING:** Use of replacement parts other than genuine Snapper parts may impair the safety of your mower and will void our warranty.

**IMPORTANT:** This warranty is void unless the warranty card attached is filled out completely and mailed to the Factory within 10 days of purchase date.

IT IS THE POLICY OF McDONOUGH POWER EQUIPMENT, INC. TO IMPROVE ITS PRODUCTS WHENEVER IT IS POSSIBLE AND PRACTICAL TO DO SO. WE RESERVE THE RIGHT TO MAKE CHANGES OR ADD IMPROVEMENTS AT ANY TIME WITHOUT INCURRING ANY OBLIGATION TO MAKE SUCH CHANGES ON PRODUCTS MANUFACTURED PREVIOUSLY.

## McDONOUGH POWER EQUIPMENT, INC.



McDONOUGH, GA., U. S. A., 30253

# OPERATOR'S MANUAL

# SNAPPER MOWER

MODELS SV182 — V182 — V182S  
SV212 — V212 — V212S — V2124

## IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** Failure to comply with the following instructions may result in serious injury to the operator or other persons. The owner of the mower must understand these instructions and, furthermore, must allow only persons who understand these instructions to operate the mower. Any person operating the mower must be of sound mind and body and must not be under the influence of any substance which might impair vision, dexterity, or judgement.

### TRAINING

1. Read this Manual carefully and question your dealer if something is not clear. Should the dealer be unavailable or unable to answer to your satisfaction, write or call our Customer Service Department at the factory. Be thoroughly familiar with the controls and proper use of the equipment.
2. Never allow children to operate a power mower.
3. Keep the area of operation clear of all persons, particularly small children, and pets.

### PREPARATION

1. Never operate mower without proper guards, plates, safety switches, or other safety protective devices in place and properly connected. Inspect to determine that these safety devices are installed properly, are in good repair, and operate properly. If the condition or operation of these devices are questionable, they must be repaired or replaced before using the mower.
2. Thoroughly inspect the area where the mower is to be used and remove all stones, sticks, wire, bones and other foreign objects. Also note the location of holes, stumps, and other possible hazards.
3. Do not operate mower when barefoot or wearing open sandals. Always wear substantial footwear and long pants.
4. Fill gasoline tank before starting engine. Use approved gasoline container. Do not smoke near open gasoline container. Do not fill gasoline tank indoors or when engine is running. Allow engine to cool for at least ten minutes before refilling. Wipe off any spilled gasoline before starting engine. Do not run engine indoors.
5. Never attempt to make a wheel height adjustment while the engine is running.
6. When mowing over rough ground or in tall grass, mower must be set in highest cutting position.
7. Mow only in daylight or in good artificial light.
8. Never operate mower in wet grass. Always be sure of your footing; keep a firm hold on the handle and walk; never run.

### OPERATION

1. Do not change engine governor settings or overspeed engine.
2. Do not put hands or feet near or under rotating parts. Keep clear of discharge area while engine is running.
3. Stop engine when crossing gravel drives, walks, or roads, and under any conditions where thrown objects might be a hazard.
4. After striking a foreign object or if mower vibrates abnormally, stop the engine, disconnect and secure spark plug wire. Inspect the mower for any damage and repair the damage.
5. Stop engine whenever you leave the operating position behind the handle for any reason, including emptying grass bag and making any adjustments, repairs, or inspections.
6. Before cleaning, repointing or inspecting, make certain blade and all moving parts have stopped. Disconnect and secure spark plug wire away from plug to prevent accidental starting.
7. Stop engine and wait until the blade comes to complete stop before removing grass bag and/or unclogging adapter.
8. Mow across steep slopes, never up-and-down. Exercise caution when changing directions on slopes. Do not mow excessively steep slopes.

### MAINTENANCE AND STORAGE

1. Keep all nuts, bolts, and screws tight to be sure mower is in safe operating condition.
2. Never store mower with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
3. To reduce fire hazard keep mower free of grass, leaves or excessive grease.
4. Check grass bag assembly frequently for wear or deterioration. Replace with new bag if loose seams or tears are evident. Replace slider or bag adapter if broken or cracked.
5. Have your mower inspected and serviced each year by an authorized Snapper dealer. Determine if any additional devices are available which might upgrade the safety of your mower.
6. Factory specified Snapper replacement parts must be used to assure adequate protection against injury.

# ASSEMBLY

## HANDLES

1. Pull up and back on lower handle pivoting, Item No. 52. Tighten the two 5/16" wing nuts, Item No. 61.
2. Fasten upper handle, Item No. 56, to lower handle pivoting, Item No. 52, using two 1/4"-28 x 1-1/2" hex head cap screw, Item No. 54, two 1/4" internal tooth lock washers, Item No. 58, and two 1/4"-28 hex nuts, Item No. 51.

## THROTTLE CONTROL

1. Fasten throttle control to inside of upper handle, Item No. 56, using one 1/4"-28 x 1-3/4 hex head cap screw, Item No. 21, one 1/4" internal tooth lock washer, Item No. 58, and one 1/4"-28 hex nut, Item No. 51.
2. Fasten throttle control conduit to handles using clips, Item No. 53.

## GRASS BAG — V182 SERIES

1. Disconnect and secure spark plug wire.
2. Place roll bar, Item No. 45, with off-set side on right hand side into slots in rear wheel brackets, Item No. 43, top part will lay down close to engine, raise up allowing ends to drop through the slots into holes below.
3. Place bag adapter, Item No. 4, onto deck with stud nearest to "caution", passing through hole in bag adapter. Make sure the slot in the bag adapter drops over the spacer, Item No. 65, and the rear of the bag adapter slides inside of guide plate, Item No. 64. Also make sure that bag adapter is pushed straight downward so that the ground contact of interlock switch deflects and permits engine to be started. Place clamp, Item No. 26, with short leg to rear over front stud. Secure bag adapter at front and rear stud with 5/16 flat washer, 5/16 lock washer and 5/16-18 wing nut.

## V182

4. Slip the ends of front wire, Item No. 3, through the front flap of the bag and hook over the roll bar. Slip the ends of the rear wire, Item No. 1, into the rear flap of the bag and hook over top section of lower handle. Top of bag should be slack for best performance. Tension along top of bag may be relieved by bending roll bar backwards slightly. Tie slider cord to rear bag wire.

## V212

4. Slip ends of rear wire, Item No. 1, Page 5, into the rear flap of grass bag. Hold the bag connector in hand, push flange section through inlet of bag, such that only the straight rod is outside. Slide rod through front loop of bag connector. Stretch inlet of bag completely around flange of bag connector. Hook rear wire over top section of middle handle. Start bottom lip of bag connector into top of bag adapter opening. Tilt bag connector toward front of mower and push downward so that flanges of bag connector will be behind flanges of the bag adapter.

## V182

5. Slip the inlet end of the bag over bag adapter as far as possible. Do not allow side of bag to block discharge opening of bag adapter.

## SIDE CHUTE

1. Disconnect and secure spark plug wire
2. Grip side chute structure, Item No. 8, with both hands, slightly squeezing together, place tab over stud at rear of discharge area and slip large slot over mounting key in deck. Slot in front of side chute structure must go down over spacer, Item No. 65. Also be sure that side chute is pushed straight downward so that ground contact of the interlock switch deflects and permits engine to be started.
3. Secure tab at rear stud with one 5/16 lock washer, one 5/16 flat washer, and one 5/16-18 wing nut. Place clamp, Item No. 26, with short leg to rear over the front stud. Secure with 5/16 flat washer, 5/16 lock washer and 5/16-18 wing nut.

# ADJUSTMENT

## CUTTING HEIGHT

1. This mower has solid through axles front and rear to give superior strength and wheel alignment. Thus, with the through axle design, it is necessary to walk the height latches one notch at a time, side to side, when it is desired to change the cutting height.
2. Setting the rear height latches one notch lower than the front will improve performance by raising the rear of the deck.

## NOMINAL CUTTING HEIGHT — INCHES NOTCHES FROM THE TOP

	1	2	3	4	5	6
18" — 1"	1 1/2"	2"	2 3/8"	2 3/4"	3 1/8"	
21" — 7/8"	1 1/4"	1 3/4"	2 1/4"	2 3/4"	3 1/8"	

# OPERATION

## STARTING ENGINE

1. Fill engine with SAE detergent 30 Wt. engine oil.
2. Fill gas tank with leaded or unleaded regular gas.
3. Move throttle control to "START", place foot on deck that is marked "PLACE FOOT HERE WHEN CRANKING". Pull starter rope rapidly.
4. On electric start models, move throttle to start, turn key to start, release when engine starts.
5. IF ENGINE DOES NOT START, CHECK INTERLOCK SYSTEM.

## GRASS BAG

1. Grass bag should be emptied before bag adapter is allowed to clog. When the bag adapter begins to clog, air pressure ceases to push the top of the bag

upward and the sound of the engine changes.

2. The first and most important step in emptying the grass bag is to STOP THE ENGINE AND PAUSE UNTIL THE BLADE STOPS ROTATING.

#### V182

3. Stop engine. Grasp the front wire, Item No. 3, with one hand, then the rear wire, Item No. 1, with the other hand, unhook and lift up, pulling the grass bag opening off of the bag adapter.

#### V212

3. Stop engine, grasp the bag connector and lift off of the bag adapter. The initial lifting motion must be in line with the flange on the bag adapter to prevent binding. Unhook rear wire and lift bag from between handles. When bag is heavily loaded, it may be easier to unhook rear wire first and then lift off bag connector. Mower may be pushed forward for access to bag.
4. To empty the grass bag, grasp the bag with one hand and pull off the slider, Item No. 22, with the other hand.
5. Replace the grass bag, re-fold the rear of the bag and replace slider before starting engine.

#### GENERAL

1. SNAPPER V212 will cut either forward or backward. However, due to the set of the blade, slightly less power is required for forward cutting than for reverse cutting.
2. To turn at end of row, push down on handle bars to raise front wheels off of the lawn. This permits turning on the back wheels only and saves scuffing the lawn.
3. For cutting on slopes, it is usually best to move side to side only — not up and down hill.
4. When vacuuming a paved walk or driveway, first lower deck to lowest position. It is then best to run the V212 forward along the extreme left hand side of the area to be cleaned. This will pick up some litter and windrow some litter to the right of the first swath.

## MAINTENANCE

#### GENERAL

1. Refer to engine manual furnished with this packet of instructions, to oil, fuel, and maintain the engine properly.
2. Never place mower on its left hand side with spark plug pointed downward as this will allow the engine oil to run out through the valve tappet vent. If left too long, oil could also leak past the piston into the cylinder.
3. Have your mower inspected and serviced each year at an authorized Snapper dealer. Determine if any additional devices are available which might upgrade the safety of your mower.
4. Factory specified Snapper replacement parts must be used to assure maximum protection against

injury.

5. To prolong the life and usefulness of your mower, it is a good practice to wash out all of the grass that may be sticking to the underside of the deck.

#### LUBRICATION

1. Change oil as specified in engine manual.
2. Occasionally put a few drops of oil on all moveable parts.

### OPTIONAL ACCESSORIES

The optional accessories listed below are available from your Snapper dealer. These kits will add to your convenience and extend the use of the product. Any of these kits may be installed in less than ten minutes using standard household tools.

1. SIDE CHUTE KIT 6-0286 (for V182 Series); 6-0287 (for V212 Series). This kit consists of a metal chute and fasteners to permit conversion of the mower to side discharge operation.
2. ZIP KIT 6-0254. This kit consists of a plastic coated metal hoop which may be installed on the rear end of the grass bag. Its purpose is to permit fast transfer of the clippings directly into a standard disposable trash bag.
3. SNAPPERIZER KIT 6-0295 (for V212); 6-0296 (for V182). This kit consists of an expanded metal shredder plate, a bottom plate, and attaching hardware. Its purpose is to convert the mower into an outdoor vacuum and leaf shredder.
4. GRASS BAG KIT 6-0284 (for SV182 Series); 6-0285 (for SV212 Series). This kit consists of a bag adapter and component parts to permit conversion of the mower to grass bagging operation.

# PARTS LIST

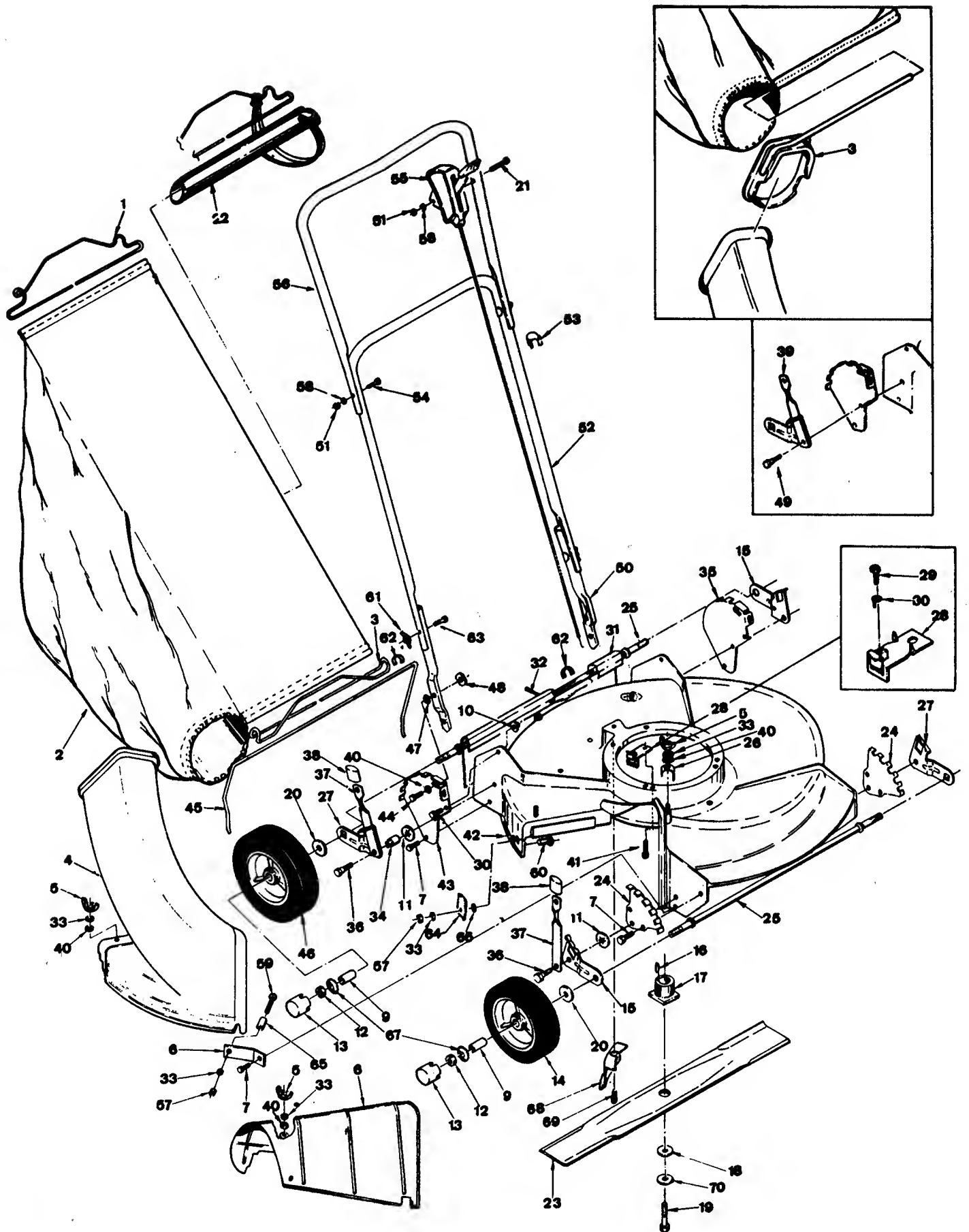
MODELS SV182 - V182 - V182S - SV212 - V212 - V212S - V2124

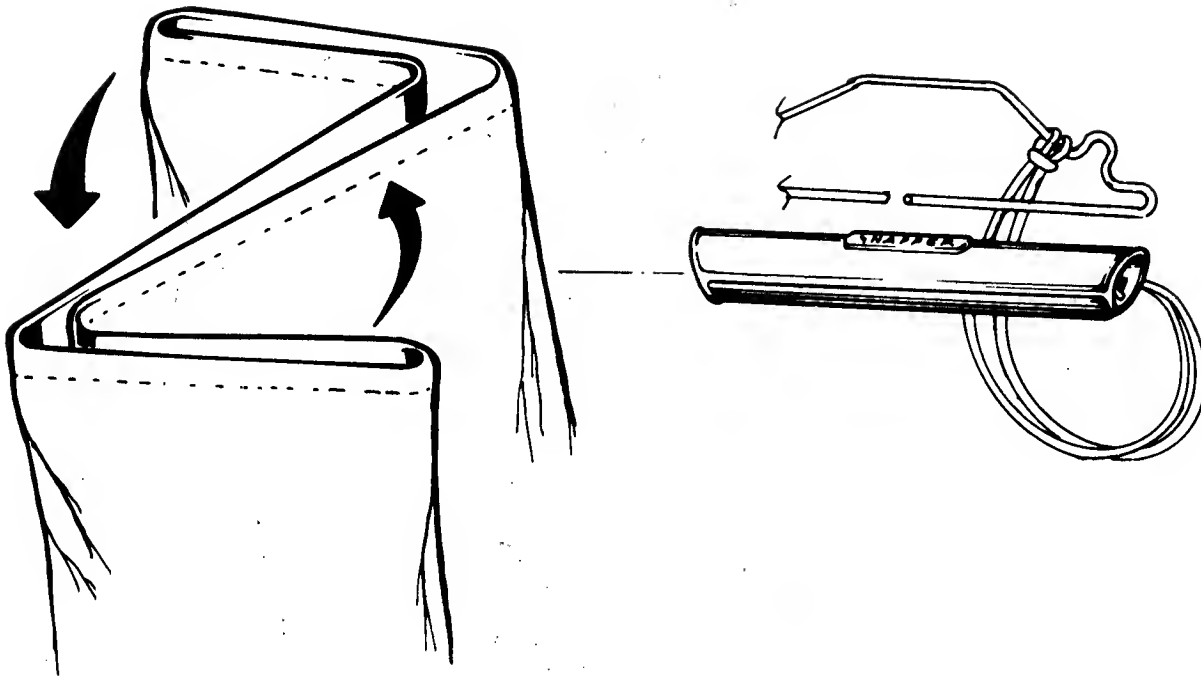
Item	Port No.	Description	Qty.	Item	Port No.	Description	Qty.
1.	3-1128	Rear Wire	1	42.	5-9521	Deck Assembly, V182	1
2.	1-2320	Gross Bog	1	42.	5-0809	Deck Assembly, V212	1
3.	3-1127	Front Wire, V182	1	43.	3-7275	Rear Bracket, R.H.	1
3.	4-7724	Bog Connector, V212	1	44.	9-0227	5/16-24 x 5/8 Hex Hd. Cop Screw	4
4.	1-9805	Bog Adapter, V212	1	45.	1-8074	Roll Bar, V182	1
4.	1-9806	Bog Adapter, V182	1	46.	1-8189	7" Wheel, Rear, V182	2
5.	9-0375	5/16-18 Wing Nut	2	46.	1-8190	8" Wheel, Rear, V212	2
6.	3-1915	Side Bracket	1	47.	9-0189	Int.-Ext. Tooth Lock Washer	2
7.	9-0361	5/16-18 x 5/8 SEMS	5	48.	1-0974	5/16-24 Weld Nut	2
8.	4-0443	Side Chute Structure, V212	1	49.	9-0484	5/16-18 x 1-1/2 HSWT, V182	2
8.	4-0444	Side Chute Structure, V182	1	50.	3-7333	Lower Handle Stationary, V212	2
9.	1-2309	Axle Bushing	4	50.	3-7332	Lower Handle Stationary, V182	2
10.	9-0388	5/16-18 Dot "T" Nut	2	51.	9-0095	1/4-28 Hex Nut	3
11.	1-1791	Bolt Retainer	4	52.	3-7331	Lower Handle Pivoting	1
12.	9-0394	7/16 F. Hex Lock Nut	4	53.	1-0098	Clip, Throttle Control	1
13.	1-2323	Hub Cap	4	54.	9-0529	1/4-28 x 1-1/4 H.H.C.S., Gr. 5	2
14.	1-8189	Wheel, 7" — Front, V182 - V212	2	55.	1-8186	Throttle Control, B. & S.	1
15.	3-1017	Wheel Arm, Front R.H., Rear L.H.	2	55.	1-8187	Throttle Control, Tecumseh	1
16.	1-0008	Key	1	56.	3-9601	Upper Handle	1
17.	1-2180	Hub	1	57.	9-0196	5/16 Hex Nut	2
18.	1-2063	Cone Washer	1	58.	9-0053	1/4 Internal Tooth Lock Washer	3
19.	9-0523	3/8-24 x 1-5/8" H.H.C.S., Gr. 5	1	59.	9-0549	5/16-18 x 1-1/4 F.H.S.	1
20.	3-1961	Steel Washer	4	60.	9-0383	5/16-18 x 1 Corriage Bolt	1
21.	9-0111	1/4-28 x 1-3/4 H. Hd. Cop Screw	1	61.	5-0615	Wing Nut	2
22.	5-0711	Slider Assembly	1	62.	1-1780	Nylon Ring	4
23.	1-8193	Blade, V212	1	63.	9-0015	1/4-20 x 1-3/4 Corriage Bolt	2
23.	1-8167	Blade, V182	1	64.	3-1917	Bracket Guide	1
24.	3-7300	Front Bracket	2	65.	1-2310	Spacer	1
25.	1-1749	Front and Rear Axle, V-182	2	66.	9-0391	5/16 ITLW	1
25.	2-1119	Front and Rear Axle, V212	2	67.	1-1079	Spring Washer	4
26.	3-1123	Clamp	1	68.	3-1807	Belt Hole Cover	1
27.	3-1016	Wheel Arm, Front L.H.; Rear R.H.	2	69.	9-0324	3/8-16 x 1" S.T. Screw	3
28.	5-0678	Interlock Assembly	1	70.	3-0008	Washer	1
29.	9-0525	8-C x 3/4 SEMS	1	<b>ITEMS NOT SHOWN ON V182 — V212</b>			
30.	9-0385	Tob Washer	1	3-7351	Heat Shield, Briggs Engine	1	
31.	3-1762	Foot Guard, V182	1	9-0457	Internal Tooth Lock Washer, Briggs Engine	1	
31.	3-1763	Foot Guard, V212	1	(3-4114)	*Gos Tonk, (Tecumseh Engine)*	1	
32.	9-0041	1/8 x 1 Cotter Pin	1	* PURCHASE FROM TECUMSEH — NOT AVAILABLE FROM SNAPPER — TECUMSEH PART NUMBER LISTED			
33.	9-0187	5/16 Lock Washer	6	<b>ITEMS NOT SHOWN ON V ELECTRIC START</b>			
34.	2-1737	Wheel Arm Spacer, V182	2	1-1789	Battery Charger	1	
35.	3-7277	Rear Bracket, L.H.	1	1-8215	Battery	1	
36.	1-1078	Shoulder Screw	4	1-1139	Switch W/Keys	1	
37.	1-2325	Height Latch, V212 (front and rear)	4	1-8095	Wiring Harness	1	
37.	1-2325	Height Latch, V212	4	3-7749	Battery Bracket	1	
38.	1-1093	Grip	4	1-1167	Key	1	
39.	1-2359	Height Latch, Rear, V182	2				
40.	9-0188	5/16 SAE Washer	4				
41.	9-0324	3/8-16 x 1 S. T. Screw	3				

## ENGINE MODELS USED:

BRIGGS & STRATTON MODEL 92908, TYPE 1454-01  
TECUMSEH MODEL LAV35, TYPE 40933L  
HONDA MODEL GV35N







## **BAG CLOSING INSTRUCTIONS**

- 1. Fold into Z shape as shown, keeping edges aligned.**
- 2. Hold edges together while pushing on slider. Be sure all edges are inside of slider.**

# THANK YOU FOR BUYING A SNAPPER PRODUCT!

We have designed and built this machine with utmost care, and it is intended to give you long and satisfactory service.

Any mechanical device can be potentially dangerous if not used properly. No accident prevention program can be successful without the wholehearted co-operation of the person who is directly responsible for the operation of the equipment. Study this operator's manual to learn the operation of the controls and observe all safety precautions. Only use this machine for the purpose it is intended. By following these instructions and safety precautions you should enjoy the long and trouble free operation you expect.

## LIMITED WARRANTY

For Ninety (90) days from purchase date for a non-commercial user, or for Thirty (30) days from purchase date for a commercial user, McDONOUGH POWER EQUIPMENT, INC., through any factory authorized service dealer, will replace for the original purchaser, free of charge, any part or parts found upon examination by the factory at McDonough, Georgia, to be defective in material or workmanship or both.

All transportation cost incurred by the purchaser in submitting material to an authorized service dealer for replacement under this warranty must be borne by the purchaser.

This warranty does not apply to engines and their components, as these items are warranted separately by their manufacturers. Neither does it apply to parts that have been damaged by accident, alteration, abuse, improper lubrication, normal wear, or other cause beyond our control.

There is no other express warranty.

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to ninety (90) days from purchase for non-commercial users, and for thirty (30) days from purchase for commercial users and to the extent permitted by law any and all implied warranties are excluded. This is the exclusive remedy. Liabilities for consequential damages under any and all warranties are excluded.

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**WARNING:** Use of replacement parts other than genuine SNAPPER parts may impair the safety of your mower and will void our warranty.

**IMPORTANT:** THIS WARRANTY IS VOID UNLESS THE WARRANTY CARD ATTACHED IS FILLED OUT COMPLETELY AND MAILED TO McDONOUGH POWER EQUIPMENT, INC., McDONOUGH, GEORGIA 30253, WITHIN TEN (10) DAYS OF PURCHASE DATE.

IT IS THE POLICY OF McDONOUGH POWER EQUIPMENT, INC. TO IMPROVE ITS PRODUCTS WHENEVER IT IS POSSIBLE AND PRACTICAL TO DO SO. WE RESERVE THE RIGHT TO MAKE CHANGES OR ADD IMPROVEMENTS AT ANY TIME WITHOUT INCURRING ANY OBLIGATION TO MAKE SUCH CHANGES ON PRODUCTS MANUFACTURED PREVIOUSLY.

## McDONOUGH POWER EQUIPMENT, INC.



McDONOUGH, GA., U. S. A., 30253

# OPERATOR'S MANUAL

# SNAPPER MOWER

MODELS SV212P – V212PH  
V212P – V212PS – V212P4

## IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** Failure to comply with the following instructions may result in serious injury to the operator or other persons. The owner of the mower must understand these instructions and, furthermore, must allow only persons who understand these instructions to operate the mower. Any person operating the mower must be of sound mind and body and must not be under the influence of any substance which might impair vision, dexterity, or judgement.

### TRAINING

1. Read this Manual carefully and question your dealer if something is not clear. Should the dealer be unavailable or unable to answer to your satisfaction, write or call our Customer Service Department at the factory. Be thoroughly familiar with the controls and proper use of the equipment.
2. Never allow children to operate a power mower.
3. Keep the area of operation clear of all persons, particularly small children, and pets.

### PREPARATION

1. Never operate mower without proper guards, plates, safety switches, or other safety protective devices in place and properly connected. Inspect to determine that these safety devices are installed properly, are in good repair, and operate properly. If the condition or operation of these devices are questionable, they must be repaired or replaced before using the mower.
2. Thoroughly inspect the area where the mower is to be used and remove all stones, sticks, wire, bones and other foreign objects. Also note the location of holes, stumps, and other possible hazards.
3. Do not operate mower when barefoot or wearing open sandals. Always wear substantial footwear and long pants.
4. Fill gasoline tank before starting engine. Use approved gasoline container. Do not smoke near open gasoline container. Do not fill gasoline tank indoors or when engine is running. Allow engine to cool for at least ten minutes before refilling. Wipe off any spilled gasoline before starting engine. Do not run engine indoors.
5. Make sure that the traction drive deadman control is disengaged before starting engine.
6. Never attempt to make a wheel height adjustment while the engine is running.
7. When mowing over rough ground or in tall grass, mower must be set in highest cutting position.
8. Mow only in daylight or in good artificial light.
9. Never operate mower in wet grass. Always be sure of your footing; keep a firm hold on the handle and walk; never run.

### OPERATION

1. Do not change engine governor settings or overspeed engine.
2. Do not put hands or feet near or under rotating parts. Keep clear of discharge area while engine is running.
3. Stop engine when crossing gravel drives, walks, or roads, and under any conditions where thrown objects might be a hazard.
4. After striking a foreign object or if mower vibrates abnormally, stop the engine, disconnect and secure spark plug wire. Inspect the mower for any damage and repair the damage.
5. Stop engine whenever you leave the operating position behind the handle for any reason, including emptying grass bag and making any adjustments, repairs, or inspections.
6. Before cleaning, repairing or inspecting, make certain blade and all moving parts have stopped. Disconnect and secure spark plug wire away from plug to prevent accidental starting.
7. Stop engine and wait until the blade comes to complete stop before removing grass bag and/or unclogging adapter.
8. Mow across steep slopes, never up-and-down. Exercise caution when changing directions on slopes. Do not mow excessively steep slopes.

### MAINTENANCE AND STORAGE

1. Keep all nuts, bolts, and screws tight to be sure mower is in safe operating condition.
2. Never store mower with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
3. To reduce fire hazard keep mower free of grass, leaves or excessive grease.
4. Check grass bag assembly frequently for wear or deterioration. Replace with new bag if loose seams or tears are evident. Replace slider or bag adapter if broken or cracked.
5. Have your mower inspected and serviced each year by an authorized Snapper dealer. Determine if any additional devices are available which might upgrade the safety of your mower.
6. Factory specified Snapper replacement parts must be used to assure adequate protection against injury.

# ASSEMBLY

## HANDLES

1. Place lower handle, Item No. 21, Page 5, in groove of lower handle stationary, Item No. 27. Secure with two 1/4"-28 x 1-1/2" hex head cap screws, Item No. 17, two 1/4" internal tooth lock washers, Item No. 18, and two 1/4"-28 hex nuts, Item No. 16.
2. Fasten upper handle, Item No. 10, Page 5, to lower handle, Item No. 21, using two 1/4"-28 x 1-1/4" hex head cap screws, Item No. 19, two 1/4" internal tooth lock washers, Item No. 18, and two 1/4"-28 hex nuts, Item No. 16.

## SPEED SECTOR

1. Fasten speed sector, Item No. 52, Page 5, to inside of upper handle using two 1/4"-28 x 1-1/2" hex head cap screws, two 1/4" internal tooth lock washers, and two 1/4"-28 hex nuts. These fasteners must be tightened securely.

## THROTTLE CONTROL

1. Install end of throttle control, Item No. 15, Page 5, through hole in speed sector. Push throttle control to stop position. Install inner wire of throttle control into control arm of engine. Push control arm to stop position and clamp control housing to the engine using clip on engine. Attach the head to the inside of upper handle using one 1/4"-28 x 1-1/4" hex head cap screw, Item No. 14, one 1/4" internal tooth lock washer, Item No. 18, and one 1/4"-28 hex nut, Item No. 16.

## CLUTCH PULL ROD

1. Install clutch pull rod, Item No. 6, Page 5, into the clutch lever, Item No. 4, as shown in Illustration A. Secure with push nut, Item No. 2.
2. Hook eye of pull rod into clutch spring, Item 18, Page 7.
3. Slide vinyl cover, Item No. 26, Page 5, over spring and eye of clutch rod.
4. Fasten clutch rod to the outside of the handles using clip, Item No. 20, Page 5.

## SPEED CONTROL LEVER

1. Place lower portion of speed control lever, Item No. 43, Page 5, into slots of speed control anchor, Item No. 32.
2. Slide spring, Item No. 13, Page 5, washer, Item No. 12, Page 5, and vinyl cover, Item No. 11, Page 5, over upper section of speed control lever.
3. Compress spring and washer so that washer is captured under the speed selector when the speed control lever is placed into the slot. Note: Spring and washer must go past 90 degree bend on upper end of speed control lever.

## TRANSFER ROD

1. Install flat end of transfer rod, Item No. 52, Page 7, into slot of transfer rod connector, Item No. 50. Slide 1/4" rod clip, Item No. 53, Page 7, onto speed control lever. Place round end of transfer rod through speed control lever and fasten rod clip to transfer rod.

## GRASS BAG

1. Disconnect and secure spark plug wire.

2. Place bag adapter, Item No. 1, Page 7, onto deck with stud nearest to "caution" passing through hole in bag adapter. Make sure that slot in bag adapter drops over spacer, Item No. 12, and rear of bag adapter slides inside of guide plate, Item No. 2. Also make sure that bag adapter is pushed straight downward so that the ground contact of interlock switch deflects and permits engine to be started. Place clamp, Item No. 4, with short leg to rear over front stud. Secure bag adapter at front and rear stud with 5/16 flat washer, 5/16 lock washer, and 5/16-18 wing nut.
3. Slip ends of rear wire, Item No. 1, Page 5, into the rear flap of grass bag. Hold the bag connector in hand, push flange section through inlet of bag, such that only the straight rod is outside. Slide rod through front loop of bag. Stretch inlet of bag completely around flange of bag connector. Hook rear wire over the top section of middle handle. Start bottom lip of bag connector into top of bag adapter opening. Tilt bag connector towards front of mower and push downward so that flanges of bag connector will be behind flanges of bag adapter.
4. Top of bag should be slack for best performance. Tension along the top of bag may be relieved by placing rear wire into the other flap at rear of grass bag.
5. Tie slider cord to rear bag wire and install slider by instructions on bag.

## SIDE CHUTE - SV SERIES

1. Disconnect and secure spark plug wire.
2. Grip side chute structure, Item No. 5, with both hands. Slightly squeezing together place tab over stud at rear of discharge area and slip large slot over mounting key in deck. Slot in front of side chute structure must go down over spacer, Item No. 12. Also be sure that the side chute is pushed straight downward so that ground contact of the interlock switch deflects and permits engine to be started.
3. Secure tab at rear stud with one 5/16" lock washer, one 5/16" flat washer and one 5/16"-18 wing nut. Place clamp, Item 4, with short leg to the rear over front stud. Secure with 5/16" flat washer, 5/16" lock washer, and 5/16"-18 wing nut.

# ADJUSTMENT

## SPEED LEVER

1. When speed lever, Item No. 43, Page 5, is in the highest position, the centerline of the rubber drive tire, Item No. 46, Page 7, Illustration F should be 1/8" to 1/4" in from the outside edge of the flat driven disc, Item No. 55, Page 7, Illustration F. To adjust, loosen the 5/16" nut at the transfer rod connector, Item No. 50, Page 7, and slide connector on thrust plate arm. Re-tighten nut and check clearance after running engine.

## CLUTCH ROD TENSION

2. To check for proper tension on the clutch rod, Item No. 6, Page 5, slide vinyl cover, Item No. 26, Page 5, up on clutch rod. There should be 1/16" to 1/8" clearance between the top hook of the wheel drive spring, Item No. 61, Page 7, and the bottom of the

eye of the clutch rod, when clutch lever is disengaged. To adjust, unhook spring from clutch rod and rotate outer spring over inner spring clockwise to reduce clearance and counter-clockwise to increase clearance. Re-install spring and vinyl cover.

### CUTTING HEIGHT

3. This mower has through axles front and rear to give superior strength and wheel alignment. Thus with the through axle design, it is necessary to walk the height latches one notch at a time, side to side when it is desired to change the cutting height. **NEVER UNLATCH BOTH SIDES AT THE SAME TIME.** Setting the rear height latches one notch lower than the front will improve performance in heavy grass by raising the rear of the deck.

### NOMINAL HEIGHT OF CUT — INCHES NOTCHES FROM THE TOP

1	2	3	4	5	6
7/8"	1 1/4"	1 3/4"	2 1/4"	2 3/4"	3 1/8"

## OPERATION

### STARTING ENGINE

1. Fill engine with SAE detergent 30 Wt. engine oil.
2. Fill gas tank with leaded or unleaded regular gas.
3. Move throttle control to "START", place foot on deck that is marked "PLACE FOOT HERE WHEN CRANKING". Pull starter rope rapidly.
4. On electric start models, move throttle to start, turn key to start, release when engine starts.
5. **IF ENGINE DOES NOT START, CHECK INTERLOCK SYSTEM.**

### DRIVE SYSTEM

1. To engage drive system, grip clutch handle, Item No. 4, Page 5, against upper handle, Item No. 10. When handle is released, drive automatically disengages and mower goes into free wheeling for easy maneuvering.
2. To select ground speed, shift speed control lever, Item No. 43, Page 5, down for slow and up for fast. Shifting effort is minimum with engine running.

### GRASS BAG

1. Grass bag should be emptied before bag adapter is allowed to clog. When the bag adapter begins to clog, air pressure ceases to push the top of the bag upward and the sound of the engine changes.
2. The first and most important step in emptying the grass bag is to **STOP THE ENGINE AND PAUSE UNTIL THE BLADE STOPS ROTATING.**
3. Stop engine, grasp the bag connector and lift off of the bag adapter. The initial lifting motion must be in line with the flange on the bag adapter to prevent binding. Unhook rear wire and lift bag from between handles. When bag is heavily loaded, it may be easier to unhook rear wire first and then lift off bag connector. Mower may be pushed forward for access to bag.
4. To empty the grass bag, grasp the bag with one

hand and pull off the slider, Item No. 39, with the other hand.

5. Replace the grass bag, re-fold the rear of the bag and replace slider before starting engine.

## MAINTENANCE

### ENGINE

1. Refer to engine manual furnished with this packet of instructions to oil, fuel, and maintain the engine properly.
2. Never place mower on its left hand side with spark plug pointed downward as this will allow the engine oil to run out through the valve tappet vent. If left too long, oil could also leak past the piston into the cylinder.
3. Have your mower inspected and serviced each year by an authorized Snapper dealer. Determine if any additional devices are available which might upgrade the safety of your mower.
4. Factory specified Snapper replacement parts must be used to assure maximum protection against injury.
5. **OCCASIONALLY CHECK FOR WEAR ON THE RUBBER DRIVEN RING. WHEN RUBBER IS WORN WITHIN 1/16" OF METAL, DRIVEN RING SHOULD BE REPLACED TO PREVENT DAMAGE TO DRIVE DISC ASSEMBLY.**
6. To prolong the life and usefulness of your mower, it is a good practice to wash out oil of the grass that may be sticking to the underside of the deck.

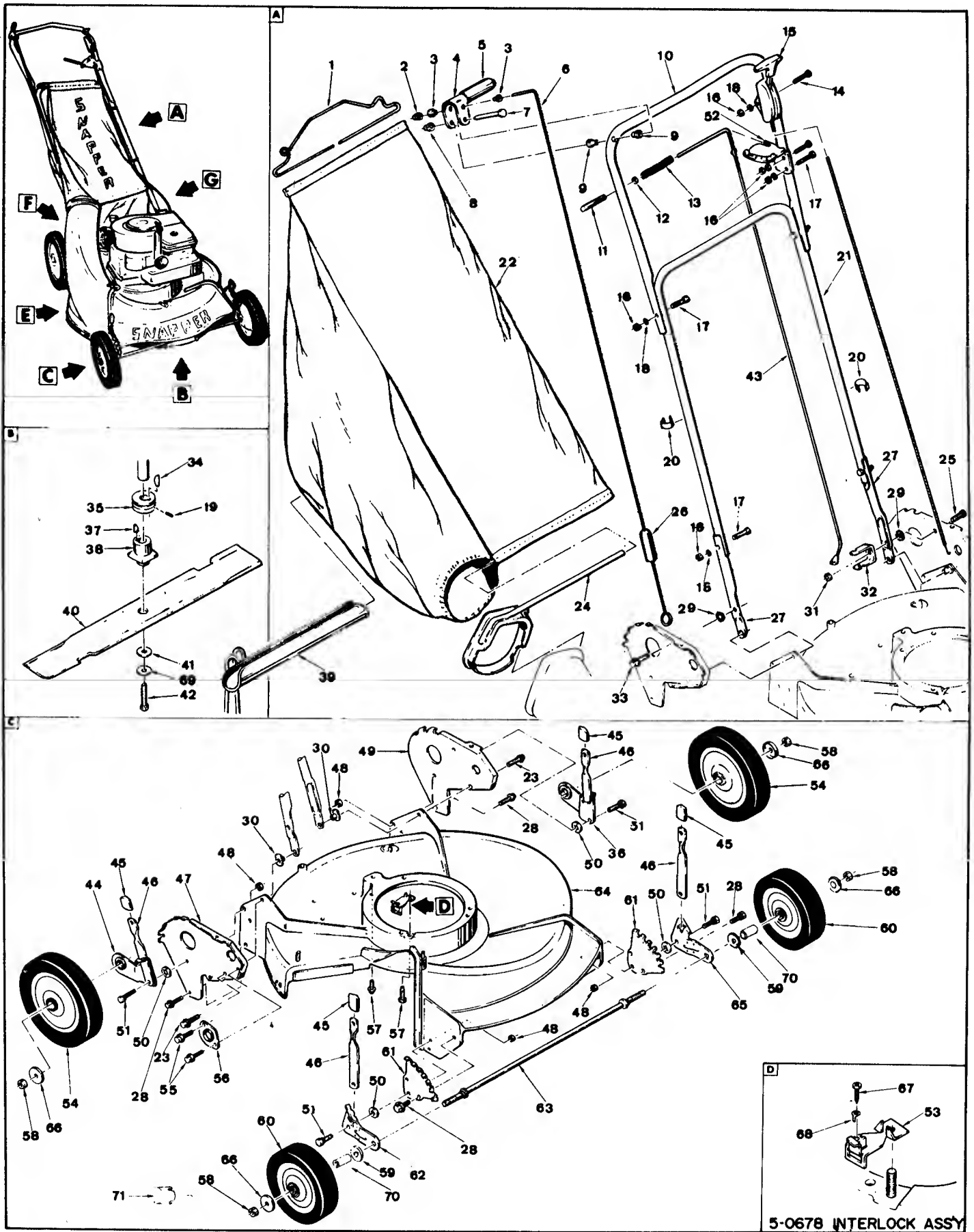
### LUBRICATION

1. Change oil as specified in engine manual.
2. Occasionally put a few drops of oil on all moveable parts.
3. The ball bearing wheels have been factory greased and should not be greased unless removed.
4. Transmission assembly is pre-lubricated with four ounces of SNAPPER "00" GREASE, Part No. 1-1050. To check grease, remove plug, Item No. 75, Page 7. If no grease is visible on input gear assembly, Item No. 80, add grease to transmission and replace plug. The grease should be checked every 20 hours of operation.

# PARTS LIST

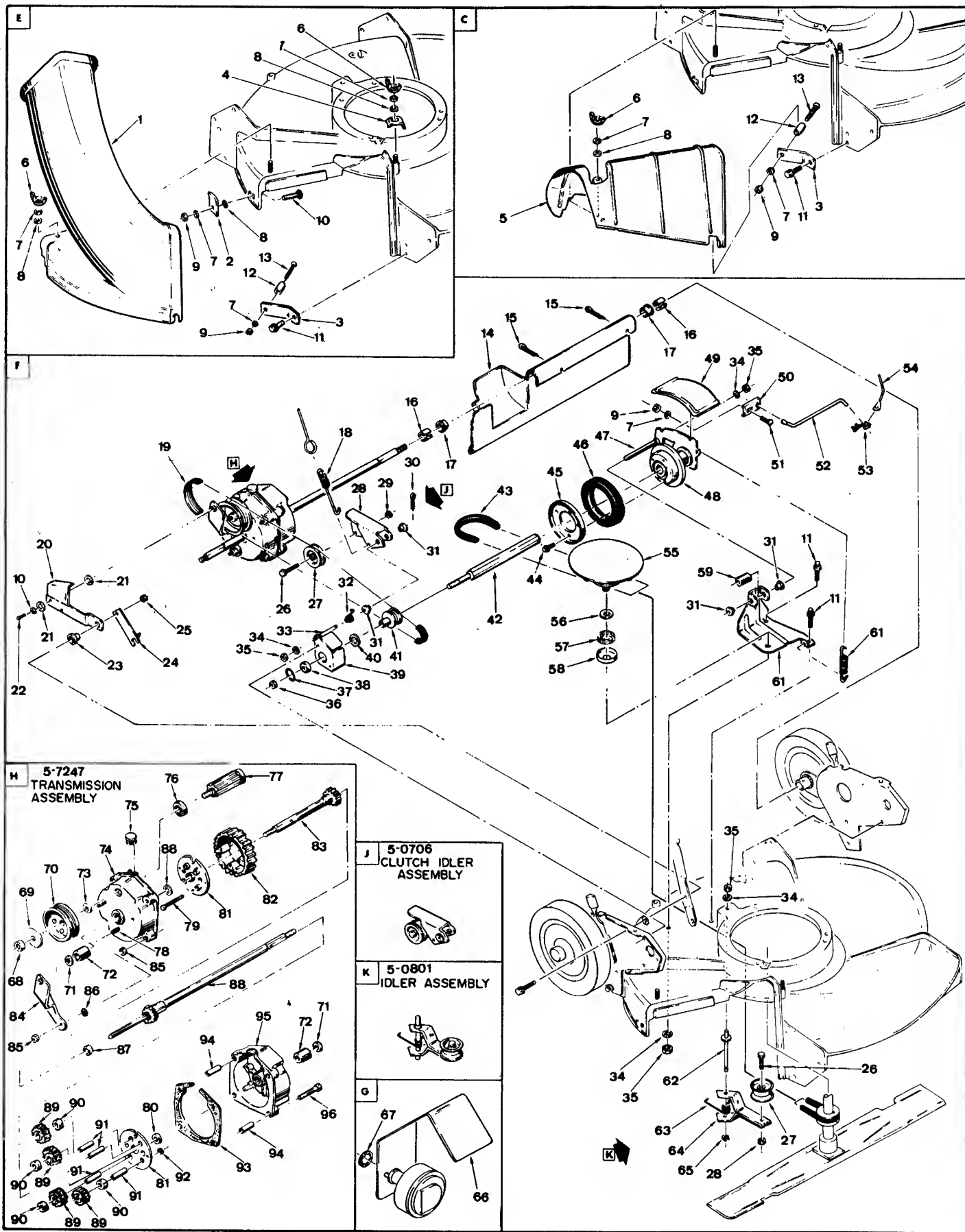
Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1.	3-1128	Rear Wire	1	53.	5-0678	Interlock Assembly	1
2.	1-2134	Push Nut	1	54.	1-2496	Rear Wheel, 9 x 1.75	2
3.	1-2135	Bushing	2	55.	9-0302	1/4-20 x 3/8 H.W.S.T.	2
4.	3-1881	Clutch Handle	1	56.	3-1809	Holder Half	1
5.	1-1982	Grip	1	57.	9-0324	3/8-18 x 1 HWS ST. Engine Bolt	3
6.	1-2120	Clutch Pull Rod	1	58.	9-0394	7/16-20 Lock Nut	4
7.	1-1886	Pin	1	59.	3-1961	Steel Washer	2
8.	9-0489	Push Nut	1	60.	1-8189	Front Wheel, 7 x 1.50	2
9.	1-2070	Bushing	2	61.	3-7300	Front Bracket	2
10.	3-9600	Upper Handle	1	62.	3-1017	Wheel Arm, Front, R.H.	1
11.	1-1879	Grip	1	63.	2-1119	Front Axle	1
12.	9-0188	5/16 Washer	1	64.	2-9805	Deck	1
13.	1-2093	Spring	1	65.	3-1016	Wheel Arm, Front, L.H.	1
14.	9-0529	1/4-28 x 1-3/4 H. Hd. Cap Screw	3	66.	1-1079	Spring Washer	4
15.	1-8186	Throttle Control, B. & S.	1	67.	9-0379	8-C x 3/4 SEMS	1
15.	1-8187	Throttle Control, Tecumseh	1	68.	9-0385	Na. 8 Tab Washer	1
15.	1-8201	Throttle Control, Honda	1	69.	2-0984	Washer	1
16.	9-0095	1/4-28 Hex Nut	7	70.	1-2309	Axle Bushing	2
17.	9-0528	1/4-28 x 1-1/2 H.H.C.S, Gr. 5	4	71.	1-2323	Hub Cap	4
18.	9-0053	1/4 Internal Tooth Lock Washer	7	<b>ITEMS NOT SHOWN — BRIGGS AND TECUMSEH</b>			
19.	9-0471	1/4 x C x 5/16 KSS	1	<b>ELECTRIC</b>			
20.	1-0098	Clip	3	1-1762	Cover, Spark Plug	1	
21.	3-7331	Lower Handle Pivoting	1	1-1789	Battery Charger	1	
22.	1-2320	Grass Bag	1	1-8215	Battery	1	
23.	9-0368	5/16-18 x 3/4 HWS ST.	2	1-1139	Switch W/Keys	1	
24.	4-7724	Adapter Structure	1	1-8095	Wiring Harness	1	
25.	9-0238	5/16-24 x 1 Hex Hd. Cap Screw	1	3-7749	Battery Bracket	1	
26.	1-2121	Vinyl Cover	1	1-1167	Key	1	
27.	3-7333	Lower Handle	2	<b>OPTIONAL ACCESSORIES</b>			
28.	9-0361	5/16-18 x 5/8 HWS ST.	4	The optional accessories listed below are available from your Snapper dealer. These kits will add to your convenience and extend the use of the product. Any of these kits may be installed in less than ten minutes using standard household tools.			
29.	9-0189	5/16 Int.-Ext. Tooth Lock Washer	2	1. <b>SIDE CHUTE KIT 6-0287</b> (for V212 Series). This kit consists of a metal chute and fasteners to permit conversion of the mower to side discharge operation.			
30.	9-0388	T-Nut	2	2. <b>ZIP KIT 6-0254</b> . This kit consists of a plastic coated metal hoop which may be installed on the rear end of the grass bag. Its purpose is to permit fast transfer of the clippings directly into a standard disposable trash bag.			
31.	9-0222	5/16-24 Hex Lock Nut	1	3. <b>SNAPPERIZER KIT 6-0295</b> (for V212). This kit consists of an expanded metal shredder plate, a bat-tam plate, and attaching hardware. Its purpose is to convert the mower into an outdoor vacuum and leaf shredder for use with the bag or side chute.			
32.	3-1755	Speed Control Anchor	1	4. <b>GRASS BAG KIT 6-0285</b> (for SV212 Series). This kit consists of a bag adapter and component parts to permit conversion of the mower to grass bagging operation.			
33.	9-0240	5/16-24 x 1-1/4 H.H.C.S.	1				
34.	1-0783	Hi-Pro Key	1				
35.	2-1707	Engine Pulley	1				
36.	5-0786	Rear Wheel Arm Assembly, L.H.	1				
37.	1-0008	Key	1				
38.	1-2180	Blade Drive Hub	1				
39.	5-0711	Slider Assembly	1				
40.	1-8193	Blade	1				
41.	1-2063	Cone Washer	1				
42.	9-0523	3/8-24 x 1-5/8 Cap Screw, Gr. 5	1				
43.	1-2110	Speed Control Lever	1				
44.	5-0787	Rear Wheel Arm Assembly, R.H.	1				
45.	1-1093	Grip	4				
46.	1-2325	Height Latch	4				
47.	3-7308	Rear Bracket, R.H.	1				
48.	9-0197	5/16-18 Jam Nut	4				
49.	3-7309	Rear Bracket, L.H.	1				
50.	1-1791	Bolt Retainer	4				
51.	1-1078	5/16-18 Shoulder Screw	4				
52.	3-7727	Speed Sector	1				





# PARTS LIST

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1.	1-9805	Adapter, Bag	1	60.	3-1919	Bracket, Deck	1
2.	3-1917	Guide Plate	1	61.	1-2123	Spring, Wheel Drive	1
3.	3-1915	Bracket, Side	1	62.	1-2318	Stud, Idler	1
4.	3-1123	Clomp	1	63.	1-2218	Spring, Idler	1
5.	4-0443	Side Chute Structure	1	64.	3-1936	Bracket, Idler	1
6.	9-0375	Nut, Wing	3	65.	1-2313	Ring, Retaining	1
7.	9-0187	Washer, Lack 5/16	5	66.	3-7351	Shield, Heat — B & S Engine Only	1
8.	9-0188	Washer, Flat 5/16	3	67.	9-0457	Washer, Internal Taath Lack	1
9.	9-0196	Nut, Hex 5/16-18	3	68.	1-2101	Nut, Hex Lack 5/16-24	1
10.	9-0383	Bolt, Carriage 5/16-18 x 1	1	69.	1-1132	Washer, Spring	1
11.	9-0361	Screw, SEMS Self Tapping 5/16-18 x 5/8	3	70.	1-2109	Pulley, Paly V-Belt	1
12.	1-2310	Spacer	1	71.	1-2314	Seal (Included in Housing Assemblies)	2
13.	9-0549	Screw, F.H. Machine 5/16-18 x 1-1/4	1	72.	1-2507	Bearing, Tapered O. D. (Included in Hausing Assemblies)	2
14.	3-9576	Guard, Rear	1	73.	1-1724	Washer, Spring	1
15.	9-0297	Cotter Pin, 1/8 x 1-1 2	2	74.	5-7246	Inbaard Hausing Assembly (In- cludes ane each af items 71, 72, 76, and two item 78	1
16.	1-0996	Spacer, Axle	2				
17.	1-0694	Bushing, Nylan	2	75.	1-1133	Plug	1
18.	1-2122	Spring, Clutch	1	76.	1-1767	Bearing, Ball (Included in Housing Assembly, Item 74)	1
19.	1-2354	Belt, Poly V	1	77.	5-0767	Input Gear Assembly (Includes Ball Bearing)	1
20.	3-1880	Link, Differential	1	78.	1-2499	Screw, Rib Neck 1/4-1	2
21.	1-1079	Washer, Spring	1	79.	9-0557	Copscrow, Hex Head 10-32 x 1-1/2	4
22.	9-0534	Capscrew, Hex Head 5/16-18 x 3/8	1	80.	3-1965	Wosher, Thrust	2
23.	1-2114	Bushing, Differential Link	1	81.	3-1970	Plate	2
24.	3-1882	Guide, Lower Belt	1	82.	1-2495	Gear, 46 T Differential	1
25.	9-0222	Nut, Hex Lock 5/16-24	1	83.	5-0830	Short Axle Assembly	1
26.	9-0552	Copscrow, Hex Head 1/4-28 x 1-3/8	2	84.	4-0447	Bracket, Differential	1
27.	1-2124	Pulley, Idler	2	85.	9-0303	Nut, Hex Lack 1/4-28	6
28.	3-1877	Arm, Clutch Idler	1	86.	9-0574	Washer, Internal External Taath Lack 1 4	2
29.	9-0303	Nut, Hex Lock 1/4-28	7	87.	1-2543	Spacer	1
30.	9-0037	Catter Pin 3/32 x 3/4	1	88.	5-0831	Long Axle Assembly	1
31.	1-2306	Bushing, Flonge	4	89.	2-1115	Gear, 12 Taath	4
32.	1-2126	Spring, Idler Torsian	1	90.	1-2500	Spacer	4
33.	1-2111	Stud, Idler	1	91.	1-1110	Shaft, Pinian	4
34.	9-0390	Washer, Internal Tooth Lock	4	92.	9-0376	Nut, Hex Lack 10-32	4
35.	9-0155	Nut, Hex 3/8-24	4	93.	1-1774	Gasket	1
36.	9-0289	Nut, Lack 3/8-24	1	94.	1-2512	Rall Pin 3 8-7/16	2
37.	1-1025	O-Ring	1	95.	5-7245	Outbaard Housing Assembly (In- cludes ane each af items 71 & 72)	1
38.	1-2304	Bearing	1	96.	9-0552	Capscrew, Hex Head 1 4-28 x 1-3 8	4
39.	3-1873	Holder Half	1	*	3-1879	Cap, Optional Steel Drive Disc far Item 55	1
40.	3-1916	Washer	1				
41.	1-2140	Pulley, Paly V-Belt	1				
42.	2-1745	Hex Shaft	1				
43.	1-1887	Belt, Engine	1				
44.	9-0307	Screw, SEMS 10-24 x 1 2	5				
45.	3-1013	Plate, Driven Ring	1				
46.	1-0927	Ring, Driven	1				
47.	1-2125	Guide, Thrust Plate	1				
48.	5-7096	Driven Disc — Assembly	1				
49.	1-2118	Caver, Driven Disc	1				
50.	3-1874	Connectar, Transfer Rad	1				
51.	9-0316	Bolt, Carriage 5/16-18 x 3 4	1				
52.	1-2255	Rod, Tranfer	1				
53.	1-0937	Clip, Right Arc Rod 1 4"	1				
54.	1-2110	Lever, Speed Control	1				
55.*	5-0702	Drive Disc — Assembly	1				
56.	9-0122	Washer, SAE 3/8	1				
57.	1-1032	Seal	1				
58.	3-1132	Shield, Bearing	1				
59.	2-1758	Spacer, Brocket	1				



## THANK YOU FOR BUYING A SNAPPER PRODUCT!

We have designed and built this machine with utmost care, and it is intended to give you long and satisfactory service.

Any mechanical device can be potentially dangerous if not used properly. No accident prevention program can be successful without the wholehearted co-operation of the person who is directly responsible for the operation of the equipment. Study this operator's manual to learn the operation of the controls and observe all safety precautions. Only use this machine for the purpose it is intended. By following these instructions and safety precautions you should enjoy the long and trouble free operation you expect.

### MANUFACTURER'S 90 DAY LIMITED WARRANTY

For Ninety (90) days from purchase date for a non-commercial user, or for Thirty (30) days from purchase date for a commercial user, McDONOUGH POWER EQUIPMENT, through any factory authorized service dealer, will replace for the original purchaser, free of charge, any part or parts found upon examination by the factory at McDonough, Georgia, to be defective in material or workmanship or both.

All transportation cost incurred by the purchaser in submitting material to an authorized service dealer for replacement under this warranty must be borne by the purchaser.

This warranty does not apply to engines and their components, as these items are warranted separately by their manufacturers. Neither does it apply to parts that have been damaged by accident, alteration, abuse, improper lubrication, normal wear, or other cause beyond our control.

There is no other express warranty.

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to ninety (90) days from purchase for non-commercial users, and for thirty (30) days from purchase for commercial users and to the extent permitted by law any and all implied warranties are excluded. This is the exclusive remedy. Liabilities for consequential damages under any and all warranties are excluded.

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**WARNING:** Use of replacement parts other than genuine SNAPPER parts may impair the safety of your mower.

**IMPORTANT:** Please fill out the attached Snapper Guarantee Card and mail to:

**McDONOUGH POWER EQUIPMENT, McDONOUGH, GEORGIA 30253**

IT IS THE POLICY OF McDONOUGH POWER EQUIPMENT TO IMPROVE ITS PRODUCTS WHENEVER IT IS POSSIBLE AND PRACTICAL TO DO SO. WE RESERVE THE RIGHT TO MAKE CHANGES OR ADD IMPROVEMENTS AT ANY TIME WITHOUT INCURRING ANY OBLIGATION TO MAKE SUCH CHANGES ON PRODUCTS MANUFACTURED PREVIOUSLY.

## McDONOUGH POWER EQUIPMENT



McDONOUGH, GA., U. S. A., 30253